WILMINGTON, N.C., DISTRICT

This district comprises central and eastern North Carolina and a portion of south-central Virginia, embraced in drainage basins tributary to the Atlantic Ocean from the southern boundary of Virginia to the Shallotte River, inclusive, with exception of the Meherrin River Basin above Murfreesboro, N. C., the Chowan River Basin above the confluence of the Nottaway and Blackwater Rivers, and the Pasquotank River and its tributaries for navigation only. Also included are those portions of the Yadkin-Pee-Dee and Catawba River basins within the State of N. C. as well as a portion of the Atlantic Intracoastal Waterway from the northern boundary of North Carolina to Little River, S.C., and a portion of the waterway from Norfolk, Va., to the Sounds of North Carolina, south of the north shore of Albemarle Sound.

IMPROVEMENTS

Navigation

1. ATLANTIC INTRACOASTAL WATERWAY BETWEEN NORFOLK, VA, AND ST. JOHNS RIVER, FL. (WILMINGTON DISTRICT)

Location. The project is located on the east coast of the United States, between Norfolk, Va., and St. Johns River, Florida. The section within Wilmington District begins at the Virginia-North Carolina State line and extends generally southerly and southwestwardly to Little River, S.C., a total of 308 statute miles. (See Coast and Geodetic Survey Charts 830 to 842, inclusive.)

Previous projects. For details see Annual Reports for 1915, 1926, 1932, and 1938.

Existing project. The authorized project provides for a waterway, 12 feet deep, with widths varying from 90 feet in land cuts to 300 feet in open waters; the construction, operation and maintenance of suitable bridges; saltwater intrusion preventive measures in the vicinity of Fairfield, N.C.; a channel in Peltier Creek, 6 feet deep and 50 feet wide from the Intracoastal Waterway in Bogue Sound to and including a basin in Peltier Creek, 6 feet deep, 200 feet wide, and 600 feet long; a channel, 6 feet deep and 90 feet wide between the Intracoastal Waterway and the gorge in Bogue Inlet, then 8 feet deep and 150 feet wide across the ocean bar; a channel, 12 feet deep and 90 feet wide to a turning basin, 200 feet wide and 350 feet long, at Swansboro; a channel, 6 feet deep and 90 feet wide in New River Inlet, and a connecting channel of the same dimensions to the Intracoastal Waterway near the mouth of New River; a channel, 10 feet deep, and 90 feet wide in New River, between the Intracoastal Waterway and the Seaboard Coastline Railroad bridge at Jacksonville, N.C.; a channel through New Topsail Inlet, 8 feet deep and 150 feet wide and a channel from New Topsail Inlet to the Intracoastal Waterway by way of Old Topsail Creek, 7 feet deep and 80 feet wide; a channel, 7 feet deep and 80 feet wide, in Banks Channel, from New Topsail Inlet, paralleling the barrier beach, to the Atlantic Intracoastal Waterway; a channel, 14 feet deep and 400 feet wide, across the ocean bar at Masonboro Inlet, with suitable jetties at the entrance, thence 12 feet deep and 90 feet wide to the channel of the Intracoastal Waterway at Wrightsville Beach by way of Banks and Motte Channels; a turning basin, 15 feet deep, 300 feet wide, and 700 feet long, on the east side of Banks Channel near Masonboro Inlet, with three 15-pile dolphins therein; a channel, 8 feet deep and 150 feet wide across the ocean bar at Carolina Beach Inlet to the Atlantic Intracoastal Waterway; a channel, 6 feet deep, 80 feet wide, and 8,000 feet long, to and including a turning basin of the same depth, 130 feet wide and 180 feet long, at Carolina Beach; a yacht basin, 230 feet wide, 450 feet long, and 12 feet deep, at the town of Southport, connected to the waterway by a suitable channel of the same depth; and maintenance of the general navigation features of the North Carolina State Ports Authority Small Boat Harbor at Southport, consisting of an entrance channel, 150 feet wide and 400 feet long, an eastern harbor access channel, 70 feet wide and 430 feet long, a western harbor-access channel, 60 feet wide and 185 feet long, to a turning basin, 180 feet wide and 550 feet long, all to a depth of 6 feet. A modification providing for the replacement of five federally owned and operated highway bridges was authorized in December 1970. A modification providing for 100 percent Federal funding for Walter B. Jones (formerly Wilkerson Creek) and Joseph P. Knapp (formerly Coinjock) bridges was authorized in October 1976. A modification providing for 100 percent Federal funding at Core Creek, Gene A. Potter (formerly Hobucken), and Fairfield Bridges was authorized in November 1986. Estimated Federal cost is $70,200,000 (2000). The tidal lock at Snow's Cut was deauthorized September 23, 1986, under authority of Sec. 12, PL93-251. The 12-foot-deep channel in Peltier Creek was deauthorized by the Water Resources Development Act of 1986. The 12-foot deep channel modification to New River was deauthorized January 1, 1990, under Sec. 1002, PL99-662. The jetties at Masonboro Inlet are complete except for the training wall, which was deauthorized April 5, 1999. A Section 111 project to mitigate damages caused by the north jetty was authorized in October 1980 and was completed in April 1981. Length of channels and basins total 347.7 miles. Plane of reference is mean low water. In the waterway north of Neuse River, variations in water surface due to winds seldom exceed 2 feet above or below mean stage. Between Beaufort and the Cape Fear River, normal tidal range varies from 3.5 feet at the inlets to 1 foot at points between. Average range of tide is 4 feet on the ocean side of Bogue Inlet and 2.5 feet just inside the inlet. At New River, tidal range varies from 3.5 feet at the inlet to 1 foot at the head of the marshes and zero at Tar Landing, 31 miles above. From Cape Fear River, N. C., to Little River, S. C., mean tidal range varies between 4.7 feet in Cape Fear River and 4 feet at the intermediate inlets, and 2 feet at points midway between the inlets. On October 15, 1954 (Hurricane Hazel), the tide at Holden Beach reached an elevation of 17.6 feet. (See Table 6-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date except for the uncompleted modifications. The State of North Carolina agreed to keep the bridges toll free and upon completion of each bridge, accept maintenance, replacement, and ownership responsibilities. They

withdrew their offer to contribute 25 percent of first cost. Water Resources Acts 1976 and 1986 modified the terms of local cooperation to delete the non-Federal cost-sharing requirement for all five bridges.

Operations and results during fiscal year. **New Work**: Costs in connection with the completed Fairfield Bridge, including real estate activities, were $8,100. **Maintenance**: **Through Channel** – During intermittent periods the U.S. debris boat *Snell* conducted clearing and snagging operations and maintained dredging ranges and mooring facilities at a cost of $395,190. During intermittent periods, the contract dredges *Marion and Richmond* removed 103,848 cubic yards from the through channel and 249,302 cubic yards from inlet crossings at a cost of $1,977,095. Between March 27 and April 9, 2003, the U.S. hopper dredge *Currituck* removed as emergency dredging 11,280 cubic yards from the through channel in Bogue Sound (Tangent B, Section 1) at a cost of $146,035. Disposal area repairs and engineering and design for future year dredging for the through channel cost $527,492. Sediment sampling and analysis for Peletier Creek cost $18,580. Engineering and design for future years dredging for inlet crossings cost $63,793. Mosquito control in disposal areas cost $112,871. Real estate support for easements and audit cost $62,056. Long-term environmental dredging and monitoring studies cost $50,248. GIS development cost $5,626. Economic update and miscellaneous planning activities cost $4,979. Dredged material management plan cost $81,859. Dredged material facility surveys and maintenance cost $647,605. Condition and operations studies and project operation and management cost $454,843. Receipts in connection with non-Federal use of Federal diked disposal areas and other miscellaneous collections resulted in a negative cost adjustment of $145,173. **Bogue Inlet** – Between October 17 and November 5, 2002, the U.S. sidecasting dredge *Fry* removed 74,300 cubic yards from shoals in Bogue Inlet at a cost of $169,696. During intermittent periods, the U.S. sidecasting dredge *Merritt* removed 147,370 cubic yards from shoals in Bogue Inlet at a cost of $297,000. Condition and operation studies cost $58,469. **Carolina Beach Inlet** – Between September 25 and September 30, 2003 the U.S. hopper dredge *Currituck* cost $55,080 for projected year-end work at Carolina Beach Inlet, but instead dredged at New River Inlet. During intermittent periods the U.S. sidecasting dredge *Merritt* removed 218,326 cubic yards from shoals in Carolina Beach Inlet at a cost of $594,000. During intermittent periods, the U.S. debris boat *Snell* repaired mooring facilities at a cost of $25,950. Construction of a mooring facility for government plant and a small storage building cost $43,257. Condition and operation studies and project operation and management cost $49,727. **Masonboro Inlet** – Condition and operation studies and project operation and management cost $1,888. **New River Inlet** – During intermittent periods, the U.S. sidecasting dredge *Merritt* removed 159,170 cubic yards from shoals in New River Inlet at a cost of $405,000. Between March 20 and March 26, 2003 the U.S. hopper dredge *Currituck* removed 14,830 cubic yards from shoals in New River Inlet at a cost of $53,550. During intermittent periods, the U.S. sidecasting dredge *Fry* removed 286,620 cubic yards from shoals in New River Inlet at a cost of $886,050. During intermittent periods, the U.S. debris boat *Snell* maintained dredging ranges and mooring facilities at a cost of $27,031. Condition and operation studies cost $119,508. **New Topsail Inlet** – Between February 5 and March 9, 2003, the contract dredge *Marion* removed 148,365 cubic yards from shoals in New Topsail Inlet and Connecting Channels at a cost of $691,902. During intermittent periods the sidecasting dredge *Merritt* removed 227,145 cubic yards from shoals in New Topsail Inlet at a cost of $469,800. Between November 20, 2002 and January 15, 2003 the U.S. sidecasting dredge *Fry* removed 174,200 cubic yards from shoals in New Topsail Inlet at a cost of $510,950. Condition and operation studies and project operation and management cost $48,092.

Condition at end of fiscal year. The project was completed in September 1997 except for three tie-up dolphins at Masonboro Inlet and the replacement of Fairfield Bridge. Fairfield Bridge is the last of the AIWW bridges to be replaced and was opened to traffic on March 12, 2001. Total cost of existing project to September 30, 2003, was $317,292,257; of which $88,711,727 was for new work including $86,851 in contributed funds and $228,580,530 was for maintenance, including $667,300 in contributed funds.

2. BEAUFORT HARBOR, N.C.

Location. The project is just inside Beaufort Inlet, adjacent to Morehead City Harbor. (See Coast and Geodetic survey Chart 420.)

Previous projects. For details see Annual Reports for 1915 and 1938.

Existing project. The authorized project provides for stopping erosion at Beaufort Inlet by jetties and sand fences at Fort Macon and Shackleford points and other shore protection; channels 15 feet deep at mean low water and 100 feet wide in Bulkhead and Gallants Channels, except for a depth of 12 feet in the upper 5,000 feet of Gallants Channel; a harbor of refuge in Town Creek 12 feet deep, 400 feet wide, and 900 feet long connected to Gallants Channel by a channel 12 feet deep, 150 feet wide, and 1,400 feet long; a basin 12 feet deep, 600 feet wide in front of the town of Beaufort except for a channel 15 feet deep, 100 feet wide through the basin; a stone bulkhead from Town Marsh across

Bird Shoal to the west end of Carrot Island; a channel 14 feet deep, 70 feet wide, and 1,900 feet long from Bulkhead Channel to a turning basin 14 feet deep, 150 feet wide, and 300 feet long near the upper end of Morgan Creek; and a channel in Taylors Creek 15 feet deep, 100 feet wide, extending about 2.6 miles easterly from about opposite Marsh Street in Beaufort to Lennoxville Point at North River except for an 800-foot-long section at the east end which is 12 feet deep. Total length of channels is 7.3 miles. Average tidal range is 2.5 feet at Beaufort and 3.5 feet at the inlet. (See Table 6-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date.

Terminal facilities. There are fifty waterfront facilities with a total frontage of 2,000 feet. These facilities are adequate for present commerce.

Operations and results during fiscal year. Maintenance: Engineering and design and surveys for future year dredging of Taylors Creek and Bulkhead Channel cost $28,411. Project condition surveys cost $21,483.

Condition at end of fiscal year. The project was completed in October 1965 except for the Morgan Creek modification which was completed November 12, 1983. (For further details see Annual Report for 1962.) Costs under existing project to September 30, 2003, were $827,040 for new work, including $34,000 contributed funds and $4,971,113 for maintenance, including $326,225 contributed funds, a total of $5,798,153.

3. CAPE FEAR RIVER, N. C. ABOVE WILMINGTON

Location. The river is formed by confluence of the Deep and Haw Rivers at Moncure, Chatham County, N.C., and empties into the Atlantic Ocean at Cape Fear, near the southern extremity of the State. (See Coast and Geodetic Survey Chart 426.)

Previous project. For details see Annual Reports for 1915 and 1938.

Existing project. The authorized project provides for a channel 25 feet deep and 200 feet wide from Wilmington to a turning basin 400 feet wide and 550 feet long at Navassa (2.9 miles); a channel 12 feet deep and 140 feet wide from Navassa to mile board 30 at Acme, with five channel cutoffs, 12 feet deep and 150 feet wide to eliminate sharp bends; a channel 8 feet deep from mile board 30 to Fayetteville by constructing three locks and dams and by dredging river shoals; and recreational facilities at the locks and dams. Total length of the project channels is 113.9 miles. The project was authorized by River and Harbor Acts of June 25, 1910; June 26, 1934; August 30, 1935; August 26, 1937; October 27, 1965; and Section 4, Flood Control Act of 1944. (For further details see Annual Reports for 1962 and 1970.)

Local cooperation. Fully complied with.

Terminal facilities. There are twelve-waterfront facilities on the river, with a total frontage of 1,190 feet.

Operations and results during fiscal year. Maintenance: During intermittent periods, the U.S. debris boat *Snell* conducted clearing and snagging operations at a cost of $60,550. A National Register of Historic Places Evaluation cost $8,435. Costs in connection with replacement of flush toilet buildings at Lock and Dam No.1 and William O. Huske Lock and Dam were $189,101. At the three locks and dams costs in connection with replacement of boat ramps were $154,857 and costs in connection with construction of picnic shelters were $55,835. Long term environmental studies and monitoring cost $3,189. Periodic inspections cost $7,120. Condition and operations studies cost $1,584. Operation and maintenance of the three locks and dams cost $460,530.

Condition at end of fiscal year. The project was completed in June 1970. Total cost of existing project to September 30, 2003, was $29,481,407 of which $3,610,454 (including $1,226,385 public works) was for new work and $25,870,953 was for maintenance.

4. LOCKWOODS FOLLY RIVER, N. C.

Location. The project is located on the south coast of North Carolina about 12 miles west of Cape Fear River. (See Coast and Geodetic Survey Chart 1236 and Geological Survey Map of North Carolina.)

Existing project. The authorized project provides for a channel 100 feet wide and 6 feet deep at low water from the ocean to the bridge at Supply 12.5 miles above, to be obtained by dredging through oyster rocks and mudflats. The completed river portion of the project above the waterway was reclassified to the active category in 1971. Lunar tidal ranges in Lockwoods Folly River are 4.5 feet at the inlet and 2 feet at the head of navigation at Supply. The existing project was authorized by the 1890 River and Harbor Act. (See Annual Report for 1887, page 1099.) A modification to enlarge the channel from 6 to 12 feet deep and from 100 to 150 feet wide across the ocean bar for a distance of 4,700 feet was approved by the Chief of Engineers on June 3, 1980, under Section 107 of the 1960 River and Harbor Act. During dredging operations it became apparent that establishment of the 12-foot project would not be possible with currently available equipment. Therefore, the Chief of Engineers, on December 20, 1983, approved the District's recommendation that further construction activity for the Lockwoods Folly

Inlet project be suspended until suitable equipment becomes available and that the project be maintained at an 8-foot project depth in the interim.

Local cooperation. For the new modification local interests must: (a) pay, contribute in kind, or repay with interest, one-half of the first costs of construction allocated to recreational boating; (b) hold and save the United States free from damages resulting from changes in ground water levels, saltwater intrusion, or wave action due to the construction works, except damages due to the fault or negligence of the United States or its contractor; (c) provide without cost to the United States all lands, easements, and rights-of-way necessary for the construction and maintenance of the project and for aids to navigation upon request of the Chief of Engineers, and (d) provide depths in berthing areas commensurate with project depths and provide service facilities.

Terminal facilities. Thirty-one piers and wharves on the Atlantic Intracoastal Waterway at Holden Beach, about 1.25 miles west of Lockwoods Folly Inlet, with a total frontage of about 1,980 feet available. At Dixons Landing, about 2 miles upstream of the inlet, there are five wharves with a total frontage of 240 feet. Numerous natural landings are used for loading and unloading small boats. Berthing space in the vicinity of Lockwoods Folly Inlet totals about 2,220 feet. Facilities are considered adequate for present commerce.

Operations and results during fiscal year. Maintenance: On January 21, 2003, the U.S. hopper dredge *Currituck* removed 820 cubic yards from shoals in Lockwoods Folly Inlet at a cost of $7,650. Between April 23 and May 7, 2003, the U.S. sidecasting dredge *Fry* removed 70,090 cubic yards from shoals in Lockwoods Folly Inlet at a cost of $176,000. During intermittent periods, the U.S. sidecasting dredge *Merritt* removed 248,745 cubic yards from shoals in Lockwoods Folly Inlet at a cost of $476,100. Between December 7, 2002 and January 4, 2003, the contract dredge *Marion* removed 27,994 cubic yards from shoals in Lockwoods Folly River at a cost $409,600. Condition and operation studies and project operation and management cost $69,527.

Condition at end of fiscal year. The active portion of the project was completed in June 1965 except for the latest modification. Work was initiated on the latest modification on September 23, 1982, with a depth of 8 feet being reached in October 1982. The project will be maintained at the 8-foot depth until suitable equipment for deepening to 12 feet becomes available.

5. MANTEO (SHALLOWBAG) BAY, N. C.

L**ocation.** The project is located on the northeastern side of Roanoke Island, North Carolina. (See Coast and Geodetic Survey Chart 1229.)

Existing project. The authorized project provides for a channel 14 feet deep and 400 feet wide from the Atlantic Ocean through Oregon Inlet with connecting 12-foot channels, 100 feet wide, to Pamlico Sound, Manteo, and Wanchese; and a channel 6 feet deep and 100 feet wide connecting the Manteo-Oregon Inlet Channel with Albemarle Sound. Length of channels is 25.4 miles. The project modification authorized in 1970 provides for stabilization of Oregon Inlet with a dual rubble-mound jetty system, including means for sand transfer to the down drift beach; a channel, 20 feet deep and 400 feet wide, through the ocean bar at Oregon Inlet; a channel, 14 feet deep and 120 feet wide, from the gorge in Oregon Inlet to and through Roanoke Sound to and including a 15-acre basin of the same depth at Wanchese; and a channel 10 feet deep and 100 feet wide from the 12-foot-deep channel in Manteo (Shallowbag) Bay through Roanoke and Albemarle Sounds to deep water near the northern end of Croatan Sound. In FY 2003, after years of controversy, the Oregon Inlet stabilization project was referred to the President's Council on Environmental Quality, which directed the Corps of Engineers to a) develop alternative approaches for improving navigation; b) implement the channel widener project; c) survey navigation channels more frequently and make the data available directly to the public and through NOAA's Electronic Navigational Charts. The Corps of Engineers agreed to cease work and funding for jetties at Oregon Inlet. The unconstructed portion of the 1970 project was reclassified as deferred September 23, 2003. The State of N.C. has constructed the Wanchese Harbor portion and was reimbursed under Sec. 215, PL 90-483. The project was authorized by River and Harbor Acts of June 25, 1910; October 17, 1940; May 17, 1950; and December 31, 1970; and under Section 107 of the 1960 River and Harbor Act, as amended.

Local cooperation. Fully complied with.

Terminal facilities. The project is served by 33 waterfront facilities with a total frontage of 3,320 feet. Additional wharves and facilities will be provided with the enlarged basin at Wanchese.

Operations and results during fiscal year. New Work: Work continued on the economic update, GDM supplement, EIS supplement, and response to CEQ referral, at a cost of $23,464. Maintenance: Between October 1, 2002 and January 22, 2003, the contract dredge *Lyndy1* dredged 180,432 cubic yards from shoals in Old House Channel and Channel to Wanchese at a cost of $560,492. Between October 1 and October 21, 2002, the contract dredge *Texas* removed 290,625 cubic yards from shoals in the ocean bar and vicinity of the bridge at a cost of $1,907,838. Between August 21, and September 30, 2003, the contract dredge *Beachbuilder* removed 733,112 cubic yards from shoals in the ocean

bar and vicinity of the bridge at a cost of $3,976,070. Between August 22 and September 30, 2003, the contract dredge *Atchafalya* removed 50,387 cubic yards from shoals in the ocean bar and vicinity of the bridge at a cost of $397,788. Between January 16 and February 19, 2003, the U.S. sidecasting dredge *Fry* removed 64,580 cubic yards from Oregon Inlet at a cost of $313,500. Between March 7 and March 25, 2003 and September 27 and September 29, 2003, the U.S. sidecasting dredge *Merritt* removed 62,370 cubic yards from shoals in Oregon Inlet at a cost of $171,000. During intermittent periods the U.S. debris boat *Snell* repaired the dock at Manteo (Shallowbag) Bay at a cost of $123,819 and conducted clearing and snagging operations and maintained dredging ranges and mooring facilities at a cost of $22,923. Additional cost in connection with prior year dredging of Oregon Inlet was $1,021,063. Engineering and design in connection with future years dredging of Old House Channel and Channel to Wanchese cost $68,254. Project monitoring cost $18,353. The National Ocean Survey tidal datum determination cost $323. Environmental and sea turtle monitoring cost $926. Condition and operation studies and project operation and management cost $133,178. Island H disposal area repairs cost $164,068 in contributed funds. Shoreline monitoring at Oregon Inlet cost $800 in contributed funds.

Condition at end of fiscal year. The project is complete except for the latest modification. Environmental mitigation for the constructed 15 acre basin at Wanchese remains to be implemented. (For further detail, see Annual Report of 1962.)

6. MOREHEAD CITY HARBOR, N. C.

Location. The project is located on the northern shore of Bogue Sound, adjacent to Beaufort Inlet. (See Coast and Geodetic Survey Chart 420.)

Previous project. For details see page 470 of Annual Report for 1935.

Existing project. A channel 47 feet deep and 450 feet wide from deep water in the Atlantic Ocean through the ocean bar at Beaufort Inlet with three wideners; a cutoff channel 400 feet wide; and a depth of 45 feet in the east leg of the basin, including a 1,350 foot diameter turning area; a channel 12 feet deep, 100 feet wide from the turning basin to Sixth Street, Morehead City, then 12 feet deep, 200 to 400 feet wide to Tenth Street; then 6 feet deep, 75 feet wide, to Bogue Sound. Project also includes assumption of maintenance in the northwest leg and the east leg extension. The Corps of Engineers also assumed maintenance of the West Turning Basin as part of the Morehead City Harbor Project, in accordance with Section 509(a)(17) of WRDA 1996 and ASA (CW) approval on September 20, 2002, and as constructed by the State of North Carolina. Jetties at Beaufort Inlet were reclassified to the "active" category on March 8, 1972. The jetties were deauthorized by the Water Resources Development Act of 1986. The project was authorized by the 1958 River and Harbor Act (S.D. 54, 84th Cong., 1st sess.), the River and Harbor Act of December 31, 1970, the Water Resources Development Act of 1992, and Section 519(a)(17) of the Water Resources Development Act of 1996. (For further details see Annual Report for 1962.)

Local cooperation. Fully complied with to date.

Terminal facilities. Twenty-six waterfront facilities serve the port, with a total frontage of 1,250 feet. Marine terminals provide 5,300 feet of berthing space, with a depth alongside of 35 feet, and facilities for transfer of cargoes between rail and water carriers. Improvements to facilities were completed in 1969. (For further details see Port Series No. 12, revised 1987, Corps of Engineers.)

Operations and results during fiscal year. Maintenance: Between January 9 and February 14, 2003 the contract dredges Manhattan Island and Padre Island removed 886,136 cubic yards from shoals in the ocean bar at a cost of $2,097,501. Cost in connection with prior year dredging of the ocean bar was $3,582 and of the inner harbor was $3,655. During intermittent periods, the U.S. debris boat *Snell* repaired the dock at Morehead City Harbor at a cost of $53,338 and conducted clearing and snagging operations and maintained dredging ranges and mooring facilities at a cost of $28,395. Engineering and Design in connection with future pump out of Brandt Island cost $117,064, in connection with future dredging of the ocean bar cost $128,620, in connection with the future dredging of the inner harbor cost $145,813, and in connection with the MCH Section 933 project cost $119,508. An evaluation and report for assumption of maintenance of the West Turning Basin Expansion cost $421. An evaluation and report of a Morehead City Harbor Section 933 project cost $306,335. Ocean dumping monitoring cost $4,460. Cost adjustment in connection with the national ocean survey tidal datum resulted in a negative cost of $3,012. The sea turtle environmental study cost $947. Condition and operation studies and project operation and management cost $184,623

Condition at end of fiscal year. The project is complete with the latest modification being physically complete in April 1994. (For further details, see Annual Report of 1962.) Total cost of the existing project to September 30, 2003, was $111,179,833 of which $15,892,219 was for new work, including $2,731,996 contributed funds (including $553,477 public works funds) and $95,003,057 for maintenance, including $3,307,628 contributed funds.

7. PAMLICO AND TAR RIVERS, N.C.

Location. The two names apply to the same river, known as the Tar above and as the Pamlico below Washington, N.C. This stream rises in Person County, flows southeasterly 180 miles to Washington, thence 38 miles to Pamlico Sound. (See Coast and Geodetic Survey Chart 537.)

Previous project. For details see page 502 of Annual Report for 1938.

Existing project. A channel 12 feet deep at mean low water and 200 feet wide from 12-foot contour in the river below Washington to Atlantic Coastline Railroad bridge at Washington; thence 12 fee deep and 100 feet wide to a turning basin of same depth, 200 feet wide, 300 feet long in Hardee Creek, 1,500 feet above its mouth; thence 6 feet deep, 75 feet wide to Greenville; thence 20 inches deep, 60 feet wide to Tarboro; and thence to clear the natural channel to Little Falls. Project was authorized by River and Harbor Acts of August 14, 1876; March 3, 1879; August 11, 1888; March 2, 1907; July 25, 1912; July 3, 1930; and August 26, 1937. (For Further details see Annual Report for 1962.)

Local cooperation. Fully complied with.

Terminal facilities. There are 54 wharves on the portion of this river under improvement, of which 34 are along the waterfront at Washington, 19 between Washington and the mouth, and only 1 in useable condition above Washington. They have a frontage of 3,570 feet. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. Maintenance: Environmental clearances cost $3,034.

Condition at end of fiscal year. Project is complete. (For details see Annual Report for 1962.)

8. ROANOKE RIVER, N.C.

Location. Rises in Blue Ridge Mountains, west of Roanoke, Va., flows southeasterly about 398 miles, and empties into westerly end of Albemarle Sound, N.C. (See Coast and Geodetic Survey Chart 1228 and Post Route Map of North Carolina.)

Existing project. A channel 12 feet deep and 150 feet wide from Albemarle Sound to 1 mile above Plymouth, N.C.; thence a channel 10 feet deep and 100 feet wide to Hamilton; and thence a channel 8 feet deep and 80 feet wide to Palmyra Landing. Project authorized by River and Harbor Acts of March 3, 1871; July 3, 1930; and June 20, 1938. For further details see Annual Report for 1962.

Local cooperation. Fully complied with.

Terminal facilities. Thirty-two waterfront facilities serve the waterway. Facilities appear adequate for existing commerce.

Operations and results during fiscal year. Maintenance: Between February 24 and March 5, 2003, the debris boat *Snell* snagged and cleared at a cost of $64,348. Environmental clearances cost $3,225.

Condition at end of fiscal year. Project is complete.

9. ROLLINSON CHANNEL, N. C.

Location. The project is located about 3.5 miles northeast of Hatteras Inlet. (See Coast and Geodetic Survey Chart 1232.).

Existing project. The authorized project provides for a channel 12 feet deep, 100 feet wide, and about 5.1 miles long from deep water in Pamlico Sound to and including a basin of the same depth, 80 to 150 feet wide, and 1,450 feet long at Hatteras; a rubble-mound breakwater on each side of the channel at the entrance to the basin; and a channel 10 feet deep and 100 feet wide from that depth in Hatteras Inlet gorge to Rollinson Channel, in the vicinity of the basin at Hatteras. The project was authorized by the River and Harbor Acts of August 30, 1935; March 2, 1945; September 3, 1954; and October 23, 1962. (For further details see Annual Report for 1961.)

Local cooperation. Complied with to date.

Terminal facilities. Six waterfront facilities serve the channel, with a total frontage of 926 feet. Existing facilities are adequate for present commerce.

Operations and results during fiscal year. Maintenance: Cost in connection with prior year contract dredging was $3,394. Between September 22 and September 25, 2003, the debris boat *Snell* repaired breakwaters at a cost of $27,680 and conducted clearing and snagging operations at a cost of $25,950. Project condition surveys cost $33,634.

Condition at end of fiscal year. The project was completed August 22, 1966. (For further details see Annual Report for 1961.)

10. SILVER LAKE HARBOR, N. C.

Location. The project is located at the southwest end of Ocracoke Island, a portion of the Outer Banks on the southeast coast of North Carolina, separating Pamlico Sound from the Atlantic Ocean. (See Coast and Geodetic Survey Chart No. 1232.)

Existing project. The authorized project provides for basin depths of 12 feet in Silver Lake Harbor; an entrance channel 12 feet deep and 60 feet wide, from

the basin to Teaches Hole Channel; a channel, 12 feet deep and 150 feet wide, from the entrance channel through Big Foot Slough Bar to the 12-foot contour in Pamlico Sound; a channel, 12 feet deep and 150 feet wide, from the entrance channel through Teaches Hole Channel to the gorge in Ocracoke Inlet, a channel, 12 feet deep and 150 feet wide, across Bluff Shoal; and for rubble-mound training walls on the north and south sides of the entrance channel, 300 feet and 400 feet long, respectively. Mean tidal ranges are 1.9 feet in the throat of Ocracoke Inlet and 1 foot at Ocracoke. Variations in the water surface of Pamlico Sound are generally due to winds and seldom exceed 1 or 2 feet above or below mean stage. Severe storms have raised the water surface as much as 7 feet above normal water level at Ocracoke. (See Table 6-B for Authorizing Legislation.)

Local cooperation. Fully complied with.

Terminal facilities. Twelve waterfront facilities serve the harbor. These facilities are adequate for existing commerce.

Operations and results during fiscal year. Maintenance: Between December 9, 2002 and January 6, 2003, the U.S. sidecasting dredge *Merritt* removed 67,121 cubic yards from shoals in the channel at a cost of $225,900. During intermittent periods the U.S. debris boat *Snell* conducted clearing and snagging operations and maintained dredging ranges and mooring facilities at a cost of $60,550. Cost in connection with prior year dredging to realign Big Foot Slough was $17,508. Environmental clearances cost $1,879. Condition and operations studies cost $3,763. Project condition surveys cost $10,363.

Condition at end of fiscal year. The project was completed July 28, 1970. (For further details see Annual Report for 1961.)

11. STUMPY POINT BAY, N.C.

Location. On southeastern side of the mainland, Dare County, N.C. (See Coast and Geodetic Survey Chart 1229.)

Existing project. A channel 75 feet wide and 10 feet deep from that depth in Pamlico Sound to a basin in the harbor at Lake Worth, 75 to 100 feet wide, 550 feet long and 10 feet deep, plus an irregularly shaped area providing access to the public wharf, together with protective breakwaters at entrance to the harbor. Project was authorized by 1948 River and Harbor Act and under Section 107, 1960 River and Harbor Act.

Local cooperation. Fully complied with.

Terminal facilities. Bulkheads in existing basin provide about 550 linear feet of berthing space, and a wholesale fish house provides about 250 feet. Part of the space along bulkheads is publicly owned. Facilities are considered adequate for existing commerce, but any appreciable increase will require additional facilities.

Operations and results during fiscal year. Maintenance: Contributed funds cost in connection with prior year repair of disposal area dikes was $1,234.

Condition at end of fiscal year. The project was completed on September 20, 1967. (For further details, see Annual Report for 1966.).

12. WILMINGTON HARBOR, N. C.

Location. The project is located on the Cape Fear River, on southeast coast of North Carolina, between the Atlantic Ocean and Wilmington, North Carolina. (See Coast and Geodetic Survey Chart No. 426.)

Previous projects. For details, see page 1804 of Annual Report for 1915 and page 533 of Annual Report for 1938.

Existing project. The authorized and constructed project provides for a channel 40 feet deep and 500 feet wide from the Atlantic Ocean through the ocean bar and entrance channels to Southport, thence 38 feet deep and 400 feet wide to the upper end of the anchorage basin (foot of Castle Street) at Wilmington, thence 32 feet deep and 400 feet wide, to Hilton Bridge over Northeast Cape Fear River; a 38-foot deep anchorage basin at Wilmington; a 32-foot-deep turning basin opposite the principal terminals; a connecting channel 12 feet deep and 100 feet wide to the AIWW, about 3 miles long, in Cape Fear River; and a channel 25 feet deep and 200 feet wide from Hilton Bridge over Northeast Cape Fear River to a point 1.66 miles above, including a turning basin of the same depth, 700 feet wide and 500 feet long, at a point 1.25 miles above the bridge. The project was authorized by River and Harbor Acts of July 3, 1930; March 2, 1945; May 17, 1950; October 23, 1962; and March 10, 1964; and under the continuing authority of Section 107 of the 1960 River and Harbor Act. Three modifications to the project were authorized by the Water Resources Development Acts of November 17, 1986 (PL 99-662) and October 12, 1996 (PL 104-303). The Energy and Water Development Appropriations Act, 1998, subsequently combined these three modifications into one project modification. The project consists of two separable elements, the portion for deepening of the existing project and the portion for raising the dikes on Eagle Island dredged material disposal facility (DMDF) for maintenance of the existing 38 foot project until the deepening is completed. The plan of improvement consists of deepening the ocean bar and entrance channels from the authorized depth of 40 feet to 44 feet; deepening the authorized 38-foot project to 42 feet up to and including the anchorage basin immediately upriver from the State

Ports Authority dock, and extending the anchorage basin northward by 300 feet; widening the existing 400-foot wide channel to 600 feet over a total length of 6.2 miles including Lower and Upper Midnight and Lower Lilliput reaches; widen five turns and bends by 100 to 200 feet providing a total average channel width of 500 to 675 feet; widening the Fourth East Jetty Channel to 500 feet over a total length of 1.5 miles; deepening the 32-foot channel between Castle Street and the Hilton Railroad Bridge, the 32-foot turning basin just above the mouth of the Northeast Cape Fear river on the west side, and the 25-foot channel from the Hilton Railroad Bridge to 750 feet upstream all to a depth of 38 feet; deepening the 25-foot channel from 750 feet upstream of the Hilton Railroad Bridge to the turning basin near the upstream limits of the project to 34 feet, along with widening of the channel from 200 to 250 feet; and widening the turning basin from 700 to 800 feet; mitigation to include acquiring, by fee title, 30 acres of upland and construction of an embayment and acquisition of about 500 acres of existing marsh and upland areas for preservation of habitat to offset losses of wetlands and primary nursery areas. The plan of improvement for the dredged material disposal facility consists of incrementally raising the dikes of three cells on Eagle Island dredged material disposal facility from their current elevations to an ultimate elevation of 40 feet. The environmental enhancement portion of the project is unprogrammed. The estimated Federal cost is $273,000,000 (2003) for the deepening project separable element and $35,000,000 (2003) for the dredged material disposal facility separable element. (For further details of authorization, see 1962 Annual Report.)

Local cooperation. Fully complied with to date except for latest modification. Cost sharing and financing are in accordance with concepts reflected in the Water Resources Development Act of 1986. For the deepening project separable element the non-Federal sponsor must (1) provide all lands, easements, rights-of-way, and dredged material disposal area lands presently estimated at $2,031,000, and bear all operation and maintenance costs presently estimated at $6,000 annually; (2) modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project, presently estimated at $21,522,000; (3) pay 25 percent of the costs allocated to deep draft navigation during construction presently estimated at $86,969,000 4) pay 35 percent of costs allocated to the Section 933 portion during construction, currently estimated at $5,380,000 and reimburse an additional 10 percent of the costs allocated to deep draft navigation within a period of 30 years following completion of construction which is partially offset by a credit allowed for the value of lands, easements, rights-of-way, relocations (except utility relocations), and dredged material disposal areas, presently estimated at $33,000,000: and (4) provide and maintain, at its own expense, the local service facilities necessary to realize the benefits of the general navigation features, presently estimated at $23,098,000.

For the dredged material disposal facility separable element the non-Federal sponsor must (1) pay 25 percent of the costs allocated to deep draft navigation during construction, presently estimated at $12,000,000; and (2) reimburse an additional 10 percent of the costs allocated to deep draft navigation within a period of 30 years following completion of construction, presently estimated at $4,700,000.

Terminal facilities. Forty-three principal wharves, piers, and docks at port of Wilmington, with a berthing space of about 20,000 linear feet serve the harbor. These facilities handle general cargo and petroleum products. (For further details, see Port Series No. 12, revised 1987, Corps of Engineers.)

Operations and results during fiscal year. New Work: Engineering and design and construction management in connection with the harbor deepening project cost $4,858,511. During intermittent periods, the contract dredges *California, Texas,* and *Dredge 54* removed 6,319,344 cubic yards for the Anchorage Basin/Passing Lane contract at a Federal cost of $32,515,238 and a contributed funds cost of $16,494,105. Cost in connection with prior year dredging for the Ocean Bar II contract (Inner Bar-New Channel) was $1,871,325 Federal cost and $623,528 contributed funds cost. Costs in connection with prior year dredging for the Wilmington Harbor Section 933 project for the Brunswick County Beaches Consortium were $484,246 Federal and $260,943 contributed funds. Disposal area construction in connection with the harbor deepening project resulted in a Federal cost of $1,455,799 and a contributed funds cost of $240,001. Construction of the confined disposal facility element – W.H. 96 Act – to provide maintenance capacity for the existing 38 foot project continued at a cost of $795,857. **Maintenance**: During intermittent periods the contract dredges *California, Dredge 54* and *Clarendon* removed 1,293,556 cubic yards from shoals in the anchorage basin/passing lane at a cost of $3,586,106. Cost in connection with prior year dredging from Snows Marsh to Baldhead Shoal Channel was $52,192. Cost in connection with prior year dredging by the U.S. hopper dredge *McFarland* was $23. During intermittent periods the U.S. debris boat *Snell* conducted clearing and snagging operations and maintained dredging ranges and mooring facilities at a cost of $148,784. Real estate studies cost $7,033. Sea turtle research project cost $1,223. ODMDS/ocean dumping monitoring cost $4,884. Mosquito control in disposal areas cost $128,255. Repair of Disposal Areas 4 and 10

cost $972,368 in contributed funds. Engineering and design for repairs to disposal Islands 8 and 10 cost $34,885 in contributed funds. Condition and operation studies and project operation and management cost $454,712.

Condition at end of fiscal year. The active portion of the project was completed August 1997 except for the latest modification. (For further details, see Annual Report for 1962) Total cost of existing project to September 30, 2003 was $438,137,043 of which $283,988,994 was for new work, including $72,788,906 contributed funds and $154,148,049 was for maintenance, including $12,650,054 contributed funds. The remaining uncompleted portion of the work authorized under the River and Harbor Act of March 2, 1945, was deauthorized in accordance with Section 1001(b) (1), PL 99-662. A new construction start for the latest modification was received in FY98, with the first disposal area construction contract awarded May 1999 and completed October 1999 and the mitigation contract awarded August 1999 and completed November 2000 and the first deepening contract awarded August 2000. The deepening project is scheduled for completion in March 2008.

Flood Control

13. ADKIN BRANCH, KINSTON, N.C.

Location. The project area is along about 2650 meters (8700 feet) of Adkin Branch from Lincoln Street upstream to NC Highway 11, in the City of Kinston, Lenoir County, in eastern North Carolina. (See USGS quadrangle sheet, Kinston, N.C.)

Existing project. Provides for channel improvement along approximately 2650 meters (8700 feet) of Adkin Branch, between Lincoln Street and Greenville Highway, to include deepening and widening to a bottom width of 8 meters (26 feet). The project also includes grading and grassing of exposed slopes to reduce siltation, use of stone bank protection in selected areas, and planting of native trees and shrubs where practicable. Approved estimated Federal implementation cost for construction is $2,057,000 (1999). The project was approved by the Division Commander on July 14, 1999, under the continuing authority of Section 205 of the Flood Control Act of 1948, as amended.

Local Cooperation. Local interests must provide all lands, easements, and rights-of-way, including suitable borrow and disposal areas for construction and subsequent maintenance and inspection of the project; accomplish without cost to the United States all relocations and alterations of buildings, transportation facilities, storm drains, utilities and other structures and improvements made necessary by the construction; provide, during the period of construction, an amount equal to not less than 25, but no greater than 50 percent, of total project implementation costs, estimated at $1,543,000, at least 5 percent of which will be cash; hold and save the United States free from damages due to the construction and subsequent maintenance, except damages due to the fault or negligence of the United States or its contractors; maintain and operate.

Operations and results during fiscal year. New Work: Coordination with the Sponsor on project termination and close out cost $1,739.

Condition at end of fiscal year. The sponsor confirmed in the summer of 2002 that a State funded project was being built that would provide significant ecosystem restoration benefits (mitigation credits for NCDOT) and, along with FEMA buyouts, would provide the needed flood damage reduction along Adkin Branch. The project will be terminated. Withdrawal of project approval and project close out are continuing. This project does not include Federal funds of $219,477 and Federal costs of $219,477 for an earlier project that was deauthorized September 8, 1981.

14. CAPE FEAR RIVER BASIN, N. C.

Location. Work covered by this project consists of a series of dams and reservoirs on tributaries of the Cape Fear River in North Carolina within a radius of 100 miles from Raleigh, North Carolina. (See Geological Survey Map of North Carolina.)

Existing project. Public Law 88-253, approved December 30, 1963, authorized three principal dams and reservoirs and a series of smaller reservoirs on tributaries of the Cape Fear River in accordance with the comprehensive plans in House Document 508, 87th Congress, 2d session. The act also provides that the appropriate agencies of the Departments of the Army and Agriculture shall conduct joint investigations and surveys and prepare a report on the upper tributaries of the Cape Fear River in the interest of watershed protection and flood prevention, and the conservation, development, utilization, and disposal of water. The report was prepared in compliance with provisions of Public Law 87-639. The study was unfavorable and has been submitted to Congress. No further action will be taken. B. Everett Jordan Dam and Lake, Randleman Lake, and Howards Mill Lake were included in the comprehensive plan and were authorized for construction in accordance with the above authorization. Howards Mill Lake was deauthorized in July 1995 due

to the current lack of economic justification. Randleman Lake was reclassified to the "deferred" category in April 1992, due to the current lack of economic justification, and was deauthorized in April 2002. See Table 6-H on Dams and Reservoirs. Estimates of cost as given are based on 1960 price levels, except for B. Everett Jordan Dam and Lake which was revised in 1994 and Randleman Lake, which was revised in 1990.

Local cooperation. Requirements are given in the individual project reports.

14A. B. EVERETT JORDAN DAM AND LAKE, N. C.

Location. The project is located on the Haw River, N.C., 4.3 miles above its mouth, and 2.5 miles north of Moncure, N. C.

Existing project. The project provides for an earth dam 1,330 feet long with a maximum height of 112 feet above the streambed, an uncontrolled, unpaved chute spillway, and a controlled 19-foot diameter outlet structure. Some saddle dikes are required beyond the spillway. The reservoir has a gross storage capacity of 753,500 acre-feet, of which 538,400 acre-feet is for flood control and a conservation pool of 215,100 acre-feet for water-quality control, water supply, and sedimentation. The reservoir will be operated as a unit of a coordinated system for control of floods in the Cape Fear River Basin and for water supply, water-quality control, and other purposes. Estimated Federal cost for new work is $147,600,000 (1994), consisting of $89,186,000 for construction, and $58,414,000 for lands and damages, including highway, railroad, and utility relocations. The existing project was authorized by Public Law 88-253 approved December 30, 1963 (H.D.508, 87th Cong., 2d Session).

Local cooperation. Local interests must protect downstream channels from encroachments and obstructions which would adversely affect operation of the project; reimburse the Federal Government for all costs allocated to municipal and industrial water supply, presently estimated at $3,700,000 and bear all annual costs for operation, maintenance, and major replacements allocated to municipal and industrial water supply, an amount presently estimated at $46,000 annually; and contribute toward the cost of the ranger security buildings, an amount presently estimated at $44,000. A contract between the State of N. C. and the United States for water supply storage space was executed by ASA (CW) on April 10, 1988. In addition, the State of N. C. has leased the project for public park, recreational, fish, wildlife, and other natural resource management purposes and the estimated cost to the State for O&M under this lease is $806,000 annually.

Operations and results during fiscal year. **Maintenance**: Maintenance: Periodic inspections cost $15,370. Construction of the management center addition cost $895,801. Engineering and design for the rip rap/slope protection failure cost 16,508. Security activities cost $10,876. Seismic reevaluation of the dam cost $18,947. Normal operation and maintenance cost $1,068,244. Receipts in connection with real estate administrative fees and other miscellaneous collections resulted in a negative cost adjustment of $3,409.

Condition at end of fiscal year. All facilities are complete. Impoundment was completed in February 1982, with dedication on May 1, 1982. The project was completed in June 1999. The real estate audit was completed March 2001. The boater use study was completed March 2004. The master plan update is scheduled to be completed September 2005.

15. CLINTON WASTEWATER TREATMENT PLANT, CLINTON, N.C.

Location. The project is located at the confluence of Dollar Branch and Williams Old Mill Branch near the City of Clinton, about 60 miles south of Raleigh, North Carolina.

Existing Project. The project consists of construction of a dike approximately 2,200 feet long around the Clinton Wastewater Treatment Plant, with sumps and pumps to provide interior drainage. Loss of 1.8 acres of wetlands due to construction will be mitigated by purchase of a 4-acre mitigation site and by the Sponsor placing a restrictive covenant to preserve 6 acres of land already owned. The project provides protection from a 100-year flood event. Approved estimated Federal cost for construction implementation is $591,000 (1998). The project was approved by the Division Commander on April 7, 1998, under the continuing authority of Section 205 of the Flood Control Act of 1948, as amended.

Local cooperation. Local interests must provide all lands, easements and rights-of-way, including suitable borrow and disposal areas necessary for construction and subsequent maintenance and inspection of the project; accomplish without cost to the United States all relocation and alterations of buildings, transportation facilities, storm drains, utilities and other structures and improvements made necessary by the construction; provide, during the period of construction, an amount equal to not less than 25 percent, but no greater than 50 percent, of total project costs, estimated at $197,000, at least 5 percent of which will be cash; hold and save the United States free from damages due to the construction and subsequent maintenance, except damages due to the fault or negligence of the United States or its contractors; maintain and operate the project after

completion without cost to the United States; assume full responsibility for all project costs in excess of the Federal cost limitation of $5,000,000 and assume financial responsibility for cleanup of hazardous and toxic waste, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act, which is necessitated by the project. Such costs will not be considered part of the total project costs, nor will the sponsor receive credit for such costs it incurs.

Operations and results during fiscal year. New Work: Coordination with the Sponsor on mitigation lands and project close out continued at a Federal cost of $5,064.

Condition at end of fiscal year. Real estate acquisition by the Sponsor is complete, but issues remain about the completion of and credit for appropriate mitigation lands. The construction contract was awarded July 13, 1999 and was substantially complete in June 2000. The project was turned over to the Sponsor in October 2000. The sponsor has completed the required flood plain management plan at their expense as a non-project cost. Coordination continues with the Sponsor on mitigation lands and LERRD's credits.

16. MORAVIAN CREEK, WILKESBORO, N.C.

Location. The project is located along 440 meters of Moravian Creek in the Town of Wilkesboro, Wilkes County, in western North Carolina.

Existing Project. The project consists of a concrete flood barrier approximately 650 feet long and up to 6 feet high, bank protection, clearing and snagging of the stream, grading and grassing of banks, and planting of native trees and shrubs. The project provides protection from a 15-year flood event of commercial structures. During design a second concrete barrier approximately 310 feet long and 6 to 18 inches high was determined necessary to provide the 15-year protection. Approved estimated Federal cost for construction implementation is $696,000 (2000). The project was approved by the Division Commander on September 30, 1998, under the continuing authority of Section 205 of the Flood Control Act of 1948, as amended.

Local cooperation. Local interest must provide all lands, easements and rights-of-way, including suitable borrow and disposal areas necessary for construction and subsequent maintenance and inspection of the project; accomplish without cost to the United States all relocation and alterations of buildings, transportation facilities, storm drains, utilities and other structures and improvements made necessary by the construction; provide, during the period of construction, and amount equal to not less than 25 percent, but not greater than 50 percent, of total project costs, estimated at $232,000, at least 5 percent of which will be cash; hold and save the United States free from damages due to the construction and subsequent maintenance, except damages due to the fault or negligence of the United States or its contractors; maintain and operate.

Operations and results during fiscal year. New Work: Coordination with the sponsor and project close out continued at a Federal cost of $20,479 and a contributed funds cost of $138.

Condition at end of fiscal year. Construction was substantially completed December 2001. LERRD's acquisition was completed and credit amounts certified in September 2003.

17. NEUSE RIVER BASIN, N. C.

Location. Works covered by this project consist of a series of dams and reservoirs in the Neuse River Basin in North Carolina within a radius of 50 miles from Raleigh, North Carolina. (See Geological Survey Map of North Carolina.)

Existing project. The Flood Control Act of 1965 authorized construction of the Falls project as the key project in the recommended general plan of development of the Neuse River Basin. The plan will serve as a guide for immediate and future development of the basin's water resources as set forth in House Document 175, 89th Congress, 1st Session. A list of projects included in the general plan of development follows. (See Table 6-J on Dams and Reservoirs.) Estimated costs as given are based on 1963 price levels, except for Falls Lake, which was revised in 1989.

17A. FALLS LAKE, N. C.

Location. The project is on the Neuse River about 10 miles north of the city of Raleigh, North Carolina.

Existing project. The authorized project provides for an earth dam 1,915 feet long with a maximum height of 95 feet above streambed. The dam has a 30-foot top width. An uncontrolled chute spillway, 100 feet wide, is located in the east abutment. The reservoir has a gross storage capacity of 374,450 acre-feet, of which 243,050 acre-feet is for flood control, 45,000 acre-feet for water supply for the city of Raleigh, 61,330 acre-feet for water quality control, and 25,070 acre-feet for sediment storage. The reservoir will be operated as the initial unit of a coordinated system for control of floods in the Neuse River Basin for water supply, water quality control, recreation, and other purposes. Estimated cost of new work is $183,000,000 (1996) consisting of $91,334,000 for construction and $91,666,000 for lands and damages, including highway, railroad, and utility relocations. The project was authorized by the 1965 Flood Control Act (H.D. 175, 89th Cong., 1st sess.).

Local cooperation. Local interests must prevent encroachment on downstream channels that would interfere with the operation of the reservoir; pay the United States in accordance with the Water Supply Act of 1958, as amended, the entire amount of construction cost allocated to water supply, presently estimated at $13,637,000 and entire amount of operation, maintenance, and replacement costs allocated to water supply, presently estimated at $116,000 annually, the final amounts to be determined after actual costs are known; administer project land and water areas for recreation and fish and wildlife enhancement; pay, contribute in kind, or repay (which may be through user fees), with interest, one-half of the separable cost of the project allocated to recreation and one-fourth of the separable cost allocated to fish and wildlife enhancement, the amount involved currently being estimated at $21,595,000, and bear all costs of operation, maintenance, and replacement of recreation and fish and wildlife lands and facilities, the amount involved currently being estimated at $1,544,000 on an average annual basis. Formal assurances have been received. The N.C. Department of Natural and Economic Resources has been authorized by an act of legislation to assure payment of all non-Federal costs allocable to water supply in all Federal projects as required by law. The State will require repayment of water supply costs by the users. A contract between the city of Raleigh and the United States for water-supply storage space was approved by the Secretary of the Army on September 11, 1972. A contract agreement for cost sharing of recreational lands and facilities in accordance with PL 89-72 was approved by the Secretary of the Army on September 11, 1972. A contract agreement in accordance with Section 221 of PL 91-611 was executed on October 10, 1972.

Operations and results during fiscal year. **New Work**: Holly Point Recreation Area improvements cost $65,610. Real estate activities cost $361. The master plan update cost $5,100. Total Federal expenditures were $71,381, including the above items. **Maintenance**: Periodic inspections cost $19,045. Acquisition of access road tract 728 cost $373. Security activities cost $10,316. GIS development cost $3,083. Seismic reevaluation of the dam cost $18,852. Normal operation and maintenance cost $1,162,966. Receipts in connection with miscellaneous collections resulted in a negative cost of $4,550.

Condition at end of fiscal year. Reservoir filling was completed on December 7, 1983. Dedication ceremonies were held on April 30, 1983. The real estate audit was completed January 2000. The project was completed March 2000. The boater use study was completed March 2004. The master plan update is scheduled for completion in September 2005.

18. ROANOKE RIVER UPPER BASIN, VIRGINIA, HEADWATERS AREA

Location. The project is located on the Roanoke River in the City of Roanoke, Va. (See USGS quadrangle sheet, Roanoke, Va.)

Existing project. The authorized plan includes about 6.2 miles of channel widening along the 10-mile project reach through the City of Roanoke, Va. Channel widening will be accomplished with the construction of a benched channel above the elevation of the average stream flow. Other flood damage reduction features include flood proofing at two locations, training walls to prevent floodwater intrusion into low areas along the river (total length 6,120 feet), replacement of two low-level bridges that constrict stream flows, and a flood warning system. Recreation facilities consist of a 5-mile recreation trail along the project reach and access and parking areas. Approved estimated Federal cost for new work is $45,800,000 (2003). The project was authorized by the Water Resources Development Act of 1986 (H.R. 6, PL99-662).

Local cooperation. Local interests must provide all lands, easements, and rights-of-way including spoil disposal areas presently estimated at $5,861,000; modify or relocate buildings, utilities, roads and other facilities except railroad bridges, where necessary for construction of the project presently estimated at $4,932,000; pay 25 percent of the cost of the flood warning system (partially offset by a credit for lands, easements, rights-of-way, and relocations) presently estimated at $10,000; pay 5 percent of the total cost allocated to flood control in cash in addition to all lands, easements, rights-of-way and relocations presently estimated at $2,4398000, and bear all costs of operation, maintenance, and replacement of flood control facilities presently estimated at $101,000, annually; pay one-half of the separable cost allocated to recreation presently estimated at $5,713,000, (partially offset by a credit for land, easements, rights-of-way and relocations) and bear all costs of operation, maintenance and replacement of recreation facilities presently estimated at $9,000, annually; pay 25 percent of the cost of non-structural flood proofing (partially offset by a credit for lands, easements, rights-of-way and relocations) presently estimated at $367,000; and pay 25 percent of cultural resources recovery that exceeds 1 percent of the total project cost, currently estimated at $219,000. Fully complied with to date.

Operations and results during fiscal year. New work: Engineering and design continued at a cost of $1,953,924.

Condition at end of fiscal year. The contract for the flood warning system was completed in January 1991. The contract for the sewage treatment plant flood proofing was awarded in August 1991 and completed in February 1993. Two hazardous material sites have been cleaned by the owners. Sponsor initiated land acquisition for channel improvement in FY98. Project completion is scheduled for September 2010.

19. YADKIN RIVER BASIN, N. C. AND S.C.

Location. The river rises on the eastern slope of the Blue Ridge Mountains in western North Carolina, flows generally easterly about 100 miles to the vicinity of Donnaha, North Carolina, thence southeasterly 104 miles to its confluence with Uwharrie River near Badin, North Carolina, where its name changes to Great Pee Dee River. (See U.S. Geological Survey map of North Carolina.)

Existing project. The Flood Control Act of July 24, 1946, authorized construction of four flood control dams in the Upper Yadkin River Basin, two on the Yadkin River above Wilkesboro, North Carolina, and two on Reddies River, a tributary stream. Studies made subsequent to authorization established the economic advantage of providing needed flood-control storage in only two reservoirs. W. Kerr Scott Dam and Reservoir was constructed in 1962 on the Yadkin River and was transferred to the Wilmington District from Charleston in Fiscal Year 1980. Reddies River Lake and Roaring River Lake were deauthorized in April 2002. (See Table 6-H on Dams and Reservoirs.)

19A. W. KERR SCOTT DAM AND RESERVOIR, N. C.

Location. W. Kerr Scott Dam and Reservoir is on Yadkin River, North Carolina, about 6 miles upstream from Wilkesboro. At full flood-control pool elevation (1,075 feet mean sea level), the reservoir extends 15.7 miles upstream to the Wilkes-Caldwell County line.

Existing project. The project consists of a rolled earth-fill dam 1,740 feet long, with top of dam at elevation 1,107.5 feet mean sea level or about 148 feet above streambed elevation; a spillway near the north abutment of the dam in a rock cut with crest elevation 1,075; and outlet works consisting of an intake structure, control tower, and a circular concrete conduit 12.25 feet in diameter through the base of the dam near the south abutment. The reservoir has a gross capacity of 153,000 acre-feet of which 112,000 acre-feet are reserved for flood control, 33,000 acre-feet will be used as required for water supply, and 8,000 acre-feet being contained in the minimum pool. Estimated cost is $9,110,000 (1983) for new work. The existing project was authorized by the 1946 Flood Control Act.

Local cooperation. Requirements fully satisfied. For details, see page 413 of Annual Report for 1963.

Operations and results during fiscal year. Maintenance: Periodic inspections cost $13,707. Normal operation and maintenance cost $2,878,996. Miscellaneous collections for timber sales resulted in a negative cost adjustment of $500.

Condition at end of fiscal year. The project was commenced in August 1960 and placed in operation for flood control and water storage purposes in August 1962.

20. INSPECTION OF COMPLETED SHORELINE PROTECTION AND FLOOD CONTROL PROJECTS

To determine the extent of compliance with approved regulations for maintenance and operation, review and inspections were made for the following projects during Fiscal Year 2003: Ararat River, Surry County, N.C.; Battery Island Bird Habitat Preservation, N.C. (CAP Sec 204); Ellis Swamp, N.C.; Filberts Creek, N.C.; Gardners Creek, N.C.; Genoa Sewer Facility, Wayne County, N.C. (CAP Sec 14); Joyce Creek, N.C.; King (Water Plant), N.C. (CAP Sec 14); Lick Run, VA; Leith Creek, Laurinburg, N.C.; Little Rockfish Creek, Hope Mills, N.C. (CAP Sec 14); Neuse River, Oriental, NC (Hodges Street Bulkhead); New River, N.C.; Pantego Creek and Cucklers Creek, N.C.; Tar River, Princeville, N.C.; South Mayo River, Stuart, VA.; Swift Creek, Pitt and Craven Counties, N.C.; BCB, Ocean Isle Beach, Brunswick County, N.C.; Carolina Beach and Vicinity, N.C.; Carolina Beach Area South, N.C. (Kure Beach); and Wrightsville Beach, N.C.. Responsible local officials were advised of inadequacies in maintenance and operation on local flood protection works, where appropriate. Genoa Sewer Facility was reclassified to inactive status making it ineligible for P.L. 84-99 rehabilitation assistance. Technical assistance was provided to communities trying to bring inactive projects for White Oak Dike, New River, and Simmons Bay Creek up to an acceptable level. Cost for the period was $27,747. Total cost to September 30, 2003, was $593,498, charged to operations.

21. FLOOD CONTROLWORKS UNDER SPECIAL AUTHORIZATION

Flood control activities pursuant to Section 205, Public Law 858, 80th Congress, as amended (preauthorization). (See Table 6-K.)

Emergency flood control activities and hurricane flood and shore-protection activities at Federally authorized projects (Public Law 99, 84th Congress, and antecedent legislation).

The Catastrophic Disaster Preparedness Program cost $26,465. The Anti-terrorism/Force Protection Program cost $143,388. The Disaster Preparedness Program cost $295,167.

Non-reimbursable costs for Emergency Operations were $29,228 for EOC Activation and PDA Team deployment for Hurricane Isabel and for the Advance Contracting Initiative.

Non-reimbursable costs for the Rehabilitation and Inspection Program in connection with Deep Creek Dike at Speed, N.C. were $10,508.

Shoreline Protection

22. BRUNSWICK COUNTY BEACHES, N.C. (CAPE FEAR TO NORTH CAROLINA-SOUTH CAROLINA STATE LINE)

Location. The project is in Brunswick County, on the south Atlantic coast of North Carolina, between the mouth of the Cape Fear River and the North Carolina-South Carolina State Line. (See Coast and Geodetic Survey Charts 1236 and 1237.)

Existing Project. The project was authorized by the 1966 Flood Control Act (H.D. 511, 89th Congress, 2d session). The project was rejected by a public referendum in 1974 and was reclassified inactive in February 1976. The project was reclassified to active in 1985 due to renewed local interest caused by continuing erosion and repeated storm damage, with the exception of Sunset Beach, which remains inactive. The General Reevaluation Report for Ocean Isle Beach was approved May 15, 1998. The authorized project for the Ocean Isle Beach portion provides a continuous vegetated dune and berm stabilized by periodic re-nourishment. The dune crown width is 25 feet at elevation 9.5 feet NGVD fronted by a berm 50 feet wide at 7 feet NGVD for a distance of 5,150 feet, then a berm with crown width of 50 feet at 7 feet NGVD for a distance of 2,600 feet, then a berm with crown width of 25 feet at 7 feet NGVD for a distance of 2,400 feet. Transitions will be 4,200 feet on the eastern end and 2,800 feet on the western end. Total length of beach segment including transitions is 17,150 feet. A General Reevaluation is underway for the Oak Island (formerly Long Beach and Yaupon Beach), Caswell Beach, and Holden Beach portion. Sunset Beach remains inactive. The estimated Federal cost is $74,791,000 (2003) for the Ocean Isle beach portion and $5,909,000 (2003) for the Oak Island, Caswell Beach, and Holden Beach portion.

Local Cooperation The PCA executed January 9, 2001, for the Ocean Isle Beach portion provides that the non-Federal sponsor shall: (a) provide all lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas; (b) perform required relocations; (c) during initial construction, contribute 35 percent of construction costs assigned to hurricane and storm damage reduction, with credit allowed for (a) and (b), currently estimated at $3,157,000; (d) during periodic re-nourishment, contribute 35 percent of construction costs assigned to hurricane and storm damage reduction, with credit allowed for (a) and (b), currently estimated at $37,052,000; (e)participate in and comply with applicable Federal floodplain management and flood insurance programs; (f)not less than once a year inform affected interests of the extent of protection afforded by the project; (g)enforce floodplain regulations; (h)provide and maintain public ownership, during the economic life of the project, of an adequate width of beach for public use, with acceptable beach access, parking areas, and other facilities necessary for realization of the benefits upon which Government participation is based; (i)adopt and enforce ordinances to provide for preservation of the project and its protective vegetation; (j)control water pollution to the extent necessary to safeguard the health of bathers; and (k)operate, maintain, repair, and rehabilitate the project. The nonfederal sponsor share of total project costs for the Oak Island, Caswell Beach, and Holden Beach portion is currently estimated to be $91,000.

Operations and results during fiscal year. New Work: The General Reevaluation for the Oak Island, Caswell Beach, and Holden Beach portion continued at a cost of $651,188. Prior year initial construction of the Ocean Isle Beach portion resulted in a Federal cost of $17,724 and a contributed funds cost of $12,457. Engineering and design in connection with a future year renourishment cycle cost $132,403.

Condition at end of fiscal year. For the Ocean Isle Beach portion, a new construction start was approved in FY 2000, the PCA was executed January 9, 2001, the construction contract was awarded February 26, 2001, and initial project construction was substantially complete and the project was operational May 15, 2001. The General Reevaluation is continuing for the Oak Island, Caswell Beach, and Holden Beach portion. Sunset Beach remains inactive.

23. CAROLINA BEACH AND VICINITY, N.C.

Location. The project is in New Hanover County, about 15 miles southeast of Wilmington, N. C., on the peninsula which separates lower Cape Fear River from the Atlantic Ocean. (See Coast and Geodetic Survey Map 834.)

Existing project. The authorized project consists of two separable elements, the Carolina Beach Portion and the Area South of Carolina Beach and extends about

32,000 feet from the northern limits of Carolina Beach to the southern limits of Kure Beach. Federal participation in the cost of periodic beach nourishment will be for a period not to exceed 50 years from the year of initial placement. The project provides for construction of a dune with a crown width of 25 feet at elevation 13.5 feet National geodetic vertical datum (NGVD), a berm with a crown width of 50 feet at elevation 10.5 feet NGVD for Carolina Beach and 9 feet NGVD for the Area South, and for Carolina Beach a rock revetment at elevation 10.5 feet NGVD along the northern 2,050 feet fronted by a 130-foot wide berm at elevation 6.5 feet NGVD. The Area South of Carolina Beach was reclassified to the active category, June 1985. The estimated Federal cost for the Carolina Beach Portion is $27,300,000 (2003) and for the Area South is $89,700,000 (2003). The project was authorized by the 1962 Flood Control Act (H.D.418, 87th Cong. 2d sess.). The Water Resources Development Act of 1986 authorized Federal participation in future nourishment for 50 years.

Local cooperation. For the **Carolina Beach portion**, as originally authorized and constructed, local interests must (a) provide lands, easements, and rights-of-way for construction; (b) make required relocations and alterations of streets, utilities, or structures; (c) contribute 37.9 percent of the total first cost, with credit allowed for (a) and (b); (d) hold the United States free from damages; (e) maintain all works and undertake periodic beach nourishment after completion, with specified Federal contributions for 10 years after completion; and (f) additional provisions in the agreement executed August 17, 1981. Subsequently, WRDA 86 extended Federal participation to 50 years from initial construction (1964-2014). A PCA was executed July 29, 1994 that addressed periodic nourishment through the project life and provided that local interests shall (a) provide all lands, easements, relocations, rights-of-way, and suitable borrow and dredged or excavated material disposal areas (b) pay 35 percent of the total costs of each periodic nourishment assigned to hurricane and storm damage reduction; with credit for (a) above; and (c) operate, maintain, repair, replace, and rehabilitate hurricane and storm damage reduction facilities. For the **Area South portion**, local interests must: (a) provide lands, easements, relocations, rights-of-way, including suitable borrow and dredged or excavated material disposal areas; (b) pay 35 percent of the total costs of initial construction and of each periodic nourishment assigned to hurricane and storm damage reduction with credit for (a) above; and (c) bear all costs of operation, maintenance and replacement of hurricane and storm damage reduction facilities; and additional provisions in the PCA executed September 26, 1995.

Operations and results during fiscal year. New Work: Prior year initial construction of the Area South portion resulted in a Federal cost of $6,007. Engineering and design for a future year renourishment cycle for the Carolina Beach portion cost $76,238 and for the Carolina Beach Area South portion cost $58,758

Condition at end of fiscal year. Initial project construction for the Carolina Beach portion was completed August 12, 1982, except for grassing which was completed in September 1983. The latest increment of periodic nourishment for the Carolina Beach portion was completed in April 2001 with the next increment scheduled for FY 2004 or FY 2005. The contract for the initial construction of the Area South portion was awarded August 1996 with dredging completed in January 1998, and final contract completion in December 1999. The contract for the first increment of periodic nourishment for Area South was awarded in January 2001 and completed in June 2001, with the next increment scheduled for FY 2004 or FY 2005.

24. DARE COUNTY BEACHES, N.C. (BODIE ISLAND PORTION)

Location. The project is in Dare County on the north coast of North Carolina, about 40 miles south of the North Carolina-Virginia state line. (USGS quadrangle sheets Kitty Hawk, Manteo, and Roanoke Island NE)

Existing Project. The project was authorized by the Water Resource Development Act of 2000. (Chief of Engineers Report dated December 29, 2000) The authorized project consists of a 25 foot wide dune at elevation 13 feet National Geodetic Vertical Datum (NGVD) and a 50 foot wide berm to be constructed at elevation 7 feet NGVD along two separate stretches of shoreline starting at Kitty Hawk and ending at Nags Head. Total length is about 14.1 miles. The estimated Federal cost is $830,000,000 (2003)

Local Cooperation The PCA has not been executed, but in accordance with changed cost sharing and financing requirements, the non-Federal sponsor must provide: a) all lands, easements and rights-of-way, including suitable borrow and spoil disposal areas, presently estimated at $6,156,000; b) required relocations; c) 35 percent of the initial construction cost allocated to hurricane and storm damage reduction, with credit for a) and b) above, presently estimated at $28,844,000, and d) 50 percent of periodic re-nourishment costs allocated to hurricane and storm damage reduction, presently estimated at $765,000,000 and e) bear all costs of operation, maintenance, repair, rehabilitation, and replacement of hurricane and storm damage reduction facilities, currently estimated at $100,000.

Operations and results during fiscal year. New Work: Engineering and design was initiated at a Federal cost of $6,125.

Condition at end of fiscal year. A new construction start was approved in FY 2003. The PCA is scheduled to be executed in May 2005.

25. WEST ONSLOW BEACH AND NEW RIVER INLET, NC

Location. The project is in the Town of Topsail Beach at the southern end of Topsail Island in Pender County on the central North Carolina coast. Topsail Island is a barrier island located approximately 40 miles northeast of Wilmington, North Carolina. (See USGS quadrangle sheets Hampstead and Holly Ridge)

Existing Project. The project was authorized by Title I, Section 101 (15) of the Water Resources Development Act of 1992. (H.D. 102-393, 102nd Congress, 2d session). Funds to initiate preconstruction engineering and design were appropriated in FY 1990. The project received a new construction start for FY 1994; however, no Construction, General appropriation funds were expended. The project cooperation agreement was not executed due to the Sponsor's inability to fund their share of the project cost. The project was placed in inactive status in July 1994 due to lack of local support. The Town of Topsail Beach has experienced severe beach erosion, heavy property damage, and damage to or destruction of the primary dune system as a result of storm surges from hurricanes in 1996 and 1999 and northeasters over recent years. Local interests are now able to and would support the project. In FY 2001, a design agreement was executed and a general reevaluation was initiated to redefine the project scope. The authorized project consists of a sand dune constructed to an elevation of 13 feet above mean sea level (MSL) fronted by a storm berm constructed to an elevation of 9 feet above mean sea level and a beach (natural) berm constructed to an elevation of 7 feet above MSL along 9,500 feet of shoreline; two transition sections constructed to elevation 7 feet above MSL along 2400 feet on the southern end and along 6860 feet on the northern end; and renourishment of the project at approximately two year intervals. The borrow area, located in Banks Channel, will be dredged to a depth of 20 feet below mean low water. The estimated Federal cost for new work is $107,000,000 (2003).

Local Cooperation The authorizing document provides that the non-Federal sponsor shall (a) provide all lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas; (b) perform required relocations; (c) during initial construction, contribute 35 percent of construction costs assigned to hurricane and storm damage reduction, with credit allowed for (a) and (b), currently estimated at $8,600,000; (d) during periodic re-nourishment, contribute 50 percent of construction costs assigned to hurricane and storm damage reduction, with credit allowed for (a) and (b), currently estimated at $91,400,000; (e) hold and save the Government free from damages; (f) comply with the Uniform Relocations Assistance and Real Property Acquisition Act of 1970; (g) publicize flood plain information for the area; (h) provide and maintain public ownership and use, during the economic life of the project, of an adequate width of beach for public use, with acceptable beach access, parking areas, and other facilities necessary for realization of the benefits upon which Government participation is based; (i) at least once a year inform affected interests of the limitations of the protection provided by the project; (j) adopt and enforce regulations to prevent encroachment and preserve the project.; and (k) operate, maintain, repair, and rehabilitate the project.

Operations and results during fiscal year. New Work: The General Reevaluation Report was continued at a Federal cost of $671,280 and a contributed funds cost of $226,439.

Condition at end of fiscal year. In FY 2001, a design agreement was executed and a General Revaluation Report was initiated to redefine the project scope. Execution of the PCA is scheduled for FY 2006.

26. WRIGHTSVILLE BEACH, N. C.

Location. A small island 10 miles east of Wilmington, N. C. (See Coast and Geodetic Survey Map p.834)

Existing project. Construct a dune with a base bordering at or near the building line, with a crown width of 25 feet at elevation 15 feet above mean low water, together with integral construction of a beach berm with a crown width of 50 feet at elevation 12, extending about 14,000 feet from Moores Inlet on the north to Masonboro Inlet on the south. Existing project was authorized by 1962 Flood Control Act (H.D. 511, 87th Cong., 2d sess.). The Water Resources Development Act of 1986 authorized Federal participation in future nourishment for the life of the project. The estimated Federal cost for new work is $24,100,000 (2003).

Local cooperation. Fully complied with to date.

Operations and results during fiscal year. New Work: No work was accomplished, but $9,000 of Federal funds were reprogrammed out of this project.

Condition at end of fiscal year. All work under the initial authorization has been completed. Initial construction was completed May 1970. Under WRDA 86, the third renourishment was completed in May

1998. The latest periodic renourishment was completed in FY2002, with the next cycle scheduled for FY2006.

Multi-Purpose Projects, Including Power

27. ROANOKE RIVER BASIN, VA. AND N.C.

Location. The project is on the Roanoke River and its tributaries in Virginia and North Carolina within a radius of 100 miles from Danville, Virginia.

Existing project. The Flood Control Act of 1944 approved a general plan for the comprehensive development of the Roanoke River Basin for flood control and other purposes, and authorized construction of John H. Kerr and Philpott Reservoirs. (See Table 6-H for a list of dams and reservoirs included in the comprehensive plan.)

Local cooperation. None required. John H. Kerr and Philpott Reservoirs are the only projects in the comprehensive plan that have been authorized for construction. (See Table 6-H on Dams and Reservoirs.)

27A. JOHN H. KERR DAM AND RESERVOIR, VA. AND NC

Location. The project is on Roanoke River, about 178.7 river miles above its mouth, in Mecklenburg County, Virginia, and 20.3 miles downstream from Clarksville, Virginia. The reservoir extends upstream on Roanoke River 56 miles and on Dan River 34 miles.

Existing project. The authorized project provides for a concrete gravity dam with wing and saddle dikes on the right and left banks, with a total length of about 22,285 feet. The reservoir is operated as a unit of a coordinated system of reservoirs in the Roanoke River Basin for control of floods, generation of hydroelectric power, regulation of low-water flow, and for other purposes. The power installation is 204,000 kilowatts. (For further details see Annual Report for 1962.) The existing project was authorized by the 1944 Flood Control Act.

Local cooperation. None required.

Operations and results during fiscal year. New Work: Major rehabilitation of power facilities cost $4,998,090, including engineering and design and construction management costs of $860,213 and contract earnings of $1,356,552 for the Switchyard Installation Contract, $641,722 for the Exciters Supply Contract, $1,316,162 for the Transformers Supply Contract, and $815,424 for the Generator Rewind and Turbine Replacement Contract and in-house and contract costs of $4,200 for resident office permanent improvements, and $3,817 for distributions. **Maintenance**: Belle Vista archaeological activities cost $9,010. The Island Creek pumping plant rehabilitation and replacement cost $359,628. The Tungsten Queen Mine Site law suit cost $203. GIS development cost $4,763. Periodic inspections cost $104,035. Mitigation of flood damages at Buggs Island and Cedar Grove archaeological activities cost $12,864. The Occoneechee Wildlife Management Area archaeology study cost $76,340. Security activities cost $52,288. Normal operation and maintenance cost $10,008,720. Receipts in connection with collections for timber sales, disposals, damages, real estate administrative fees, and other miscellaneous collections resulted in a negative cost adjustment of $18,300.

Condition at end of fiscal year. Project is complete except for additional recreational facilities. Production of power and protection from floods are provided by project. Major rehabilitation of power facilities, with a new construction start in FY 2000, is continuing.

27B. PHILPOTT LAKE, VA.

Location. The project is located on Smith River, Virginia, 44.3 miles above its junction with Dan River, and 35 miles upstream from Virginia-North Carolina State line in Franklin and Henry Counties.

Existing project. The authorized project provides for a concrete gravity dam 892 feet long and with a maximum height of 220 feet. Reservoir is operated as a unit of a coordinated reservoir system for flood control in the Roanoke River Basin, generation of hydroelectric power, regulation of low-water flow, and for other purposes. The powerhouse has a total installation of 14,000 kilowatts. (For further details see Annual Report for 1962). Existing project was authorized by 1944 Flood Control Act.

Local cooperation. None required.

Operations and results during fiscal year. Maintenance: Recreation modernization at the Goose Point Recreation Site cost $286,824. Periodic inspections cost $12,781. The 50th Anniversary celebration cost $91,659. Normal operation and maintenance cost $2,776,864.

Condition at end of fiscal year. The project is complete except for additional recreational facilities, and is providing power and flood protection.

28. SCHEDULING FLOOD CONTROL RESERVOIR OPERATIONS

All Wilmington District reservoir projects were impacted by the severe drought that continued into and ended during Fiscal Year 2003. As a result of this unprecedented drought, there were deviations from approved operation plans at all district projects. The

well-documented drought in the southeastern United States resulted in all Wilmington District projects except W. Kerr Scott below guide curve at the beginning of the fiscal year.

B. Everett Jordan Dam and Lake, located in the Cape Fear River Basin, North Carolina, located in the Cape Fear River Basin, North Carolina, began Fiscal Year 2003 at elevation 213.98 feet, m.s.l., or 2.02 feet below guide curve. Well below normal inflow and rainfall amounts over the past four years caused drought conditions to linger resulting in the minimum elevation for the fiscal year of 213.74 feet, m.s.l. or 2.26 feet below guide curve on October 9, 2002. A rainfall event on the 10th and 11th of October 2002 left over 4 inches of precipitation at the dam. This resulted in the lake rising to elevation 222.59 feet, m.s.l. in late October. Several rainfall events occurred through November and December 2002 that produced greater than average inflows and kept the lake above guide curve. January 2003 saw a return to below average rainfall and brought the lake to just below guide curve for most of the month. From February through April, several rainfall events brought the lake level back to and then well above guide curve. During April, 6.63 inches of rain fell and produced a new record lake level of 233.82 feet, m.s.l. or 17.82 feet above guide curve. The lake level returned to near normal by the end of April. For the remainder of the fiscal year, several minor rainfall events kept the lake near or slightly above guide curve ending the fiscal year at elevation 216.37 feet, m.s.l. Maximum flood pool storage utilized during the fiscal year was 66.3 percent, and the conservation pool storage remaining at the minimum elevation was 79 percent. Flood damages prevented during Fiscal Year 2003 were $37,418,790, making the cumulative total $246,135,440 since inception of the project in 1981. Total cost of functional operation for the period was $139,180.

Falls Lake, located in the Neuse River Basin, North Carolina, began Fiscal Year 2003 at elevation 244.68 feet, m.s.l., or 6.82 feet below guide curve of 251.5 feet, m.s.l. Well below average rainfall amounts at the beginning of October drew Falls Lake level down from 244.68 to 244.09 feet, m.s.l., the annual minimum elevation for the fiscal year. During this time period, outflows were held at 95 cfs, or 5 cfs lower than the 100 cfs required minimum flow as measured below the dam. This operational flow was the target flow, regardless of the flow at Clayton, as approved by the North Carolina Department of Water Quality to conserve the remaining storage in the lake. Starting on the 10th of October the beginning of the El Nino of 2002-2003 began. Within one week, total precipitation measured over 6.25 inches at the dam and Falls Lake level rose from 244.09 to 252.70 feet, m.s.l. or 8.61 feet. For the remainder of the calendar year the rainfall pattern over the Neuse Basin occurred from once per week to every other week. In mid December, a rainfall event of over 2.5 inches quickly raised Falls Lake to 255.42 feet, m.s.l. or 3.92 feet above guide curve. Just after this event the El Nino was said to be in a 'lull' period, from mid- December to the end of January 2003, a period when inflow and rainfall events tapered off. For this same period, Falls Lake level was above or near guide curve. Two small rainfall events, one the last few days of January and the next at the end of the first week in February, was a precursor for the re-intensified El Nino. Rainfall events occurred very frequently and at times in heavy amounts from the start of February to mid-April. On April 13, 2003, Falls Lake project rose to 262.97 feet, m.s.l., or 11.47 feet above guide curve. This lake elevation marked the third highest since impoundment and was just 0.83 feet below the emergency spillway crest. With the lake level extremely high, the desire to strike a balance of upstream and downstream concerns resulted in the decision to revert back to the water control plan for flood operations. While it was unpopular to the immediate downstream interests, a concerted effort with local, state and federal agencies was made so as not to cause major flooding along the Neuse River. The discharges from Falls Lake were increased to an authorized operational discharge of 6,000 cfs, which did not enter living areas of homes immediately downstream. The El-Nino weather pattern persisted, but to a much lesser degree. On May 27, an accumulated rainfall totaled 3.2 inches and again Falls Lake level rose rapidly to 256.25 feet, m.s.l, or 4.75 feet above guide curve. As a result, the Falls Lake operation was in accordance with the water control plan, which was to release near 4,500 cfs and not the previous maximum limit of 3,500 cfs. The decision to operate in accordance to the approved water control plan was beneficial to the basin as a whole. The maximum flood pool storage utilized during the year was 82.8 percent, and the minimum conservation pool storage remaining was 32.3 percent at the minimum elevation. Flood damages prevented during Fiscal Year 2003 were $32,814,200 for a cumulative total of $576,832,200 since inception of the project in 1983. Total cost of functional operation for the period was $150,507.

John H. Kerr Dam and Reservoir, located in the Roanoke River Basin, Virginia and North Carolina, began Fiscal Year 2003 at elevation 292.38 feet, mean sea level (m.s.l.), or 7.12 feet below guide curve. The reservoir level continued to drop resulting in the minimum elevation for the fiscal year on October 10, 2002 at 291.24 feet, m.s.l. or 7.59 feet below guide curve. Rainfall and inflows in excess of normal during October through December ended the drought trends and caused the reservoir level to rise above guide curve in early November. Three separate elevation peaks above 300 feet, m.s.l. occurred during November and

December. January was the only month during the fiscal year with measured rainfall and inflow amounts below normal. The reservoir level returned to near guide curve elevation by the end of January. Flood peaks occurred in excess of elevation 307 and 313 feet, m.s.l. in March. The annual maximum elevation of 317.24 feet, m.s.l. occurred on April 14, 2003 at 15.31 feet above guide curve. The reservoir level briefly returned to near guide curve during mid-May only to peak above elevation 315 feet, m.s.l. by the third week of June. The reservoir level then bounced between near guide curve and elevation 305 feet, m.s.l. through the remainder of the year. John H. Kerr reservoir level ended the fiscal year at elevation 305.28 feet, m.s.l. or 5.78 feet above guide curve. Flood operations during the spring were responsible for releases in excess of those desirable for successful striped bass fish spawning in the lower Roanoke River. The contractual power pool storage was completely exhausted once the reservoir level dropped below elevation 293 feet, m.s.l. The maximum flood pool storage utilized during the fiscal year was 71.87 percent. Gross generation for the fiscal year amounted to 864,599,800 kilowatt-hours or 50 percent above normal and net marketed power revenue was $8,514,790, making the cumulative total $218,987,607 since inception of the project in 1952. Flood damages prevented during Fiscal Year 2003 were estimated at $28,545,100 increasing the cumulative total since 1952 to $419,397,930. Total cost of functional operation for the period was $389,278.

Philpott Lake, located on the Smith River in the Dan River Basin, Virginia, began Fiscal Year 2003 at elevation 963.71 feet, m.s.l. or 7.79 feet below guide curve. The lake level continued to drop resulting in the minimum elevation for the fiscal year on October 15, 2002 at 963.37 feet, m.s.l. or 8.13 feet below guide curve. Observed rainfall, October through December, averaged above normal and inflows averaged near normal. The level of Philpott Lake continued on a steady rise to exceed the guide curve elevation of 971.5 feet, m.s.l. in late December. The lake level remained above guide curve throughout the month of January and only briefly dipped below it again in early to mid-February. This was the last time the lake level dropped below guide curve for the remainder of the fiscal year. As a result of above normal computed inflows from February through September the lake level had three monthly peaks in excess of elevation 977 feet, m.s.l., two above 976 feet, m.s.l. and two above 975 feet, m.s.l. The maximum elevation at Philpott Lake during Fiscal Year 2003 occurred on April 11 at 977.81 feet, m.s.l. or 4.31 feet above guide curve. The level of Philpott Lake ended the fiscal year at elevation 972.49 feet, m.s.l. or 0.99 feet above guide curve. The contractual power pool storage remaining at the lowest elevation during the year was 50 percent. Gross generation for the fiscal year amounted to 37,981,017 kilowatt-hours or 47 percent above normal and net marketed power revenue was $2,718,102, making the cumulative total $33,188,389 since inception of the project in 1952. Estimated flood damages prevented during Fiscal Year 2003 was $157,941,000 raising the cumulative total to $504,146,000. Total cost of functional operation for the period was $152,542.

W. Kerr Scott Dam and Reservoir, located in the Yadkin-Pee Dee River Basin, North Carolina began Fiscal Year 2003 at elevation 1032.07 feet, m.s.l., or 2.07 feet above guide curve elevation of 1030.00 feet, m.s.l. The watershed above W. Kerr Scott Reservoir received above average rainfall during the first three months of Fiscal Year 2003. This period of above average rainfall aided in bringing the upper Yadkin River out of the extreme drought conditions it had experienced over the previous several years. The reservoir level rose above guide curve several times in this three month period in response to the frequent rainfall events. Rainfall amounts were below normal in January and most of February. From the end of February through April, W. Kerr Scott Reservoir experienced several rainfall events that kept the level above guide curve for most of this time. The largest of these events brought over five inches of rain to the watershed above W. Kerr Scott Reservoir. The resulting inflows were 172% of normal. The reservoir reached elevation 1042.02 feet, m.s.l., the maximum level for Fiscal Year 2003, in response to this event. Frequent, almost weekly, rainfall events throughout the remainder of the fiscal year kept inflows well above period of record averages. Inflows calculated for June, July and August were 295%, 244%, and 235% above the period of record inflows, respectively. September brought below average rainfall to the lake, but inflows remained above average, due to saturated conditions. W. Kerr Scott Reservoir ended Fiscal Year 2003 at elevation 1029.92 feet, m.s.l., 0.08 feet below guide curve. Maximum flood pool storage utilized during the fiscal year was 18.04 percent, and the conservation pool storage remaining was 99 percent at the minimum elevation. Flood damages prevented during Fiscal Year 2003 totaled $2,865,000, making the total damages prevented since inception of the project $166,874,800. Total cost of functional operation for the period was $131,700.

Miscellaneous

29. LITTLE SUGAR CREEK HABITAT RESTORATION, N.C. (CAP Section 1135)

Location. This project is located on Little Sugar Creek between Archdale Drive and Brandywine Road in

Charlotte, North Carolina. (See USGS quadrangle sheets, Charlotte East and Weddington, N.C.)

Existing project. This project modification for improvement of the environment modifies the Little Sugar Creek CAP Section 205 flood control project and includes: placement of fishery enhancement structures in the area of the flood control project, to include rock vanes that project into the stream and boulder clusters; stream bank stabilization on Little Sugar Creek upstream to Brandywine Road to reduce sedimentation that would cover the fish structures; and tree plantings in riparian areas to provide stream shading and aesthetic enhancement. The approved estimated cost for construction implementation is $4,000,000 (2000), consisting of $3,000,000 Federal and $1,000,000 non-Federal. The project was approved by the Division Commander on April 21, 2000 under the continuing authority of Section 1135, Water Resources Development Act of 1986, as amended.

Local Cooperation. The sponsor shall contribute 25 percent of project costs, which include implementation of the authorized improvements as well as planning, engineering, design, supervision and administration, monitoring, and other activities associated with implementation, but does not include betterments. The sponsor shall also contribute sufficient additional funds to keep the Federal cost from exceeding the per project limit of $5,000,000. The non-Federal contribution will consist of credit for required lands, easements, relocations, and rights-of way; work-in-kind credit for public involvement and 3 years of monitoring of fish and benthic organism populations, to be provided by the sponsor; credit for participation on the Project Coordination Team; and cash.

Operations and results during fiscal year. New Work: Design continued at a cost of $35,839.

Condition at end of fiscal year. Design is underway. The draft PCA is with the sponsor for review. In October 2003, the sponsor requested that the Corps of Engineers terminate work on this project.

30. SEA TURTLE HABITAT RESTORATION, OAK ISLAND, N.C. (CAP Section 1135)

Location. This project is located on the oceanfront of the Town of Oak Island (formerly Long Beach), south of the Atlantic Intracoastal Waterway in Brunswick County, North Carolina. (See USGS quadrangle sheet, Southport, N.C.)

Existing project. This project modification for improvement of the environment modifies the Atlantic Intracoastal Waterway Between Norfolk, Virginia and the St. Johns River, Florida. The project modification restores sea turtle nesting habitat on Oak Island by placing beach compatible sand from the Yellow Banks Confined Disposal Facility between East 26th Place and East 58th Street to construct a 8,900 foot long main fill and a small dune to discourage turtles from crawling beyond the project. Implementation of a lighting ordinance will provide a more attractive nesting beach and improve survival of hatchlings. The approved estimated cost for construction implementation is $11,284,000 (2000), consisting of $5,000,000 Federal and $6,284,000 non-Federal. The project was approved by the Division Commander on September 17, 1999 under the continuing authority of Section 1135, Water Resources Development Act of 1986, as amended.

Local Cooperation. The sponsor shall contribute 25 percent of total project modification costs, which include implementation of the authorized improvements as well as planning, engineering, design, supervision and administration, monitoring, and other activities associated with implementation, but does not include betterments. The sponsor shall also contribute sufficient additional funds to keep the Federal cost from exceeding the per project limit of $5,000,000. The non-Federal contribution will consist of credit for required lands, easements, relocations, and rights-of way; work-in-kind credit for dune walkover structures and dune stabilization provided by the sponsor; credit for participation on the Project Coordination Team; and cash.

Operations and results during fiscal year. New Work: Continuing resolution of a construction contractor claim cost $55,494 in contributed funds.

Condition at end of fiscal year. The construction contract was awarded in December 2000 and substantially completed in May 2001. Monitoring of turtles and seabeach amaranth is continuing. Project closeout is underway. A construction contractor claim is being addressed.

31. LITTLE SUGAR CREEK AQUATIC ECOSYSTEM RESTORATION, N.C. (CAP Section 206)

Location. This project is located on Little Sugar Creek between Brandywine Avenue and East Boulevard in Charlotte, North Carolina. (See USGS quadrangle sheet, Charlotte East, N.C.)

Existing project. This aquatic ecosystem restoration project includes: placement of fishery enhancement structures to include rock vanes that project into the stream, boulder clusters, and lunker boxes; removal of an inoperable dam and concrete apron in the upstream area; stream bank stabilization on Little Sugar Creek upstream to East Boulevard to reduce sedimentation that would cover the fish structures; and planting of trees and vegetation in riparian areas to provide stream

shading and aesthetic enhancement. The approved estimated cost for construction implementation is $2,680,000 (2000), consisting of $1,742,000 Federal and $938,000 non-Federal. The project was approved by the Division Commander on July 27, 2000 under the continuing authority of Section 206, Water Resources Development Act of 1996, as amended.

Local Cooperation. The sponsor shall contribute 35 percent of project costs, which include implementation of the authorized improvements as well as planning, engineering, design, supervision and administration, monitoring, and other activities associated with implementation, but does not include betterments. The sponsor shall also contribute sufficient additional funds to keep the Federal cost from exceeding the per project limit of $5,000,000. The non-Federal contribution will consist of credit for required lands, easements, relocations, and rights-of way; work-in-kind credit for public involvement and 3 years of monitoring of fish and benthic organism populations, to be provided by the sponsor; credit for participation on the Project Coordination Team; and cash.

Operations and results during fiscal year. New Work: Design continued at a cost of $52,672.

Condition at end of fiscal year. Design is underway. In October 2003, the sponsor requested that the Corps of Engineers terminate work on this project.

32. ROANOKE ISLAND FESTIVAL PARK, DARE COUNTY, NC. (CAP Section 206)

Location. The Roanoke Island Festival Park is a State owned historic facility located on Iceplant Island, in Shallowbag Bay, off of Roanoke Sound adjacent to Manteo, in Dare County, North Carolina, about 75 miles south of Norfolk, Virginia. (See USGS quadrangle sheet, Manteo)

Existing project. This project will provide 4 acres of valuable estuarine and wetland habitat that will be restored and protected, including protection of 2 acres of existing coastal marsh and adjacent wooded wetlands from erosion and restoration of about 2 acres of shallow water area by marsh restoration and development of sea grass, marine rock and oyster habitat. . In order to facilitate the construction of the aquatic ecosystem restoration and to protect the aquatic habitat from further wave erosion, a 1,330-foot long rock sill and breakwater will be constructed. The project will provide incidental benefits by shoreline protection for public facilities located at Festival Park. The approved estimated cost for construction implementation is $1,080,000 (2002), consisting of $702,000 Federal and $378,000 non-Federal. The project was approved by the Division Commander on November 21, 2001 under the continuing authority of Section 206, Water Resources Development Act of 1996, as amended.

Local Cooperation. The sponsor shall contribute 35 percent of project costs, which include implementation of the authorized improvements as well as planning, engineering, design, supervision and administration, monitoring, and other activities associated with implementation, but does not include betterments. The sponsor shall also contribute sufficient additional funds to keep the Federal cost from exceeding the per project limit of $5,000,000. The non-Federal contribution will consist of credit for required lands, easements, relocations, and rights-of way; estimated at $1,000; work-in-kind credit for oyster bed placement, management of the 1.3 acres of wooded wetland, and project signage, estimated at $42,000, and participation on the project coordination team, estimated at $6,000; and cash.

Operations and results during fiscal year. New Work: Construction continued, including completion of the rock sill, monitoring, and coordination with the sponsor on work-in-kind credits at a Federal cost of $53,638 and a contributed funds cost of $52,674.

Condition at end of fiscal year. The Division Commander approved the PDA Documentation and the project on November 21, 2001. Construction was substantially completed and the project was operational in FY 2002. Additional construction to complete the rock sill was completed in FY 2003. Marsh and sea grass plantings, as needed, and project monitoring will continue through FY 2005.

33. WILSON BAY RESTORATION, JACKSONVILLE, N.C. (CAP Section 206)

Location. Wilson Bay is a 126-acre shallow estuarine embayment of the New River within the city of Jacksonville, Onslow County, North Carolina (See USGS quadrangle sheet Jacksonville North)

Existing Project The project will restore the Wilson Bay ecosystem, which has been degraded for many years by wastewater plant discharges, urban runoff, and alteration of hydrology. The project consists of mechanical water column aeration by the purchase, installation, and operation of three aerators and the use of three existing aerators; restoration of approximately 11.3 acres of wetlands along creeks and drainages within the Wilson Bay urban watershed; restoration of a viable benthic community by bivalve plantings at Wilson Bay Island and Wilson Bay Park; planting of approximately 4.5 acres of submerged aquatic vegetation in five areas on the perimeter of the bay; planting of approximately 1.6 acres of bioswale in an area characterized with relatively heavy surface runoff

within the Wilson Bay urban watershed; and planting of approximately .08 acre of rain gardens in areas characterized with sheet flow. The approved estimated cost for construction implementation is $5,340,000 (2003), consisting of $3,471,000 Federal and $1,869,000 nonfederal.

Local Cooperation The sponsor shall contribute 35 percent of project costs, which include implementation of the authorized improvements as well as planning, engineering, design, supervision and administration, monitoring, and other activities associated with implementation, but does not include betterments. The sponsor shall also contribute sufficient additional funds to keep the Federal cost from exceeding the per project limit of $5,000,000. The non-Federal contribution will consist of credit for required lands, easements, relocations, and rights-of way; estimated at $696,000; work-in-kind credit currently estimated at $1,168,000, and participation on the project coordination team, estimated at $5,000. Cash may be required but is not anticipated. The sponsor will assume full responsibility for the costs of operation, maintenance, repair, rehabilitation, and replacement of project features, currently estimated at $20,000 per year.

Operations and results during fiscal year. New Work: Feasibility studies and completion and approval of the report and project cost $40,513. Preparation of plans and specifications was initiated at a cost of $39,959.

Condition at end of fiscal year. The feasibility report and project were approved in June 2003 and construction funds were committed in August 2003. Preparation of plans and specifications started in June 2003 and is continuing. The PCA is scheduled to be executed in FY 04. Construction of work-in-kind features by the sponsor is scheduled to start in FY 04, after execution of the PCA.

34. WANCHESE MARSH CREATION AND PROTECTION, DARE COUNTY, NC (CAP Section 204)

Location. This project is in Dare County, North Carolina on the southeastern corner of Roanoke Island at Wanchese Harbor adjacent to the channel from Oregon Inlet and north of the entrance to Wanchese Harbor. (See USGS quadrangle sheet, Oregon Inlet)

Existing project. The marshes of Roanoke Sound are important habitat for fish and wildlife resources, support recreational and commercial activities that rely on these resources, and provide an important function as nursery habitat for estuarine fish and shellfish and support a rich and diverse benthic fauna. The proposed project will create an estuarine creek and marsh area within a protective dike. The project will encompass an area of about 12.1 acres including; (1) 8.6 acres of construction in an area that is primarily open sound waters, (2) 2 acres of high marsh that will be protected by the proposed construction and (3) 1.5 acres of *Phragmites* to be removed by chemical control and replaced by native grasses. Construction will include a dike to protect the marsh from wave action until it becomes established and can withstand the strong wave action in this area. The dike will be parallel to the existing harbor entrance channel for approximately 500 feet and then turn in a northerly direction and parallel the shoreline for approximately 700 feet. Armor stone will be placed on the outside of the permanent dike to protect against wave action. The construction of the new marsh will protect 2 acres of existing marsh from continued erosion and provide an incidental benefit by helping to stabilize the Wanchese Harbor entrance. The marsh area will be graded, planted with marsh grasses as needed over a 3-year establishment period, and monitored for the same 3 years to determine appropriate functioning of the habitat. Dredged material will come from maintenance dredging of the Manteo (Shallowbag) Bay – Channel to Wanchese navigation channel. The new marsh will be established by sprigging with at least three varieties of native marsh grasses including smooth cordgrass (S*partina alterniflora*), black needlerush (J*uncus roemerianus*) and saltmeadow hay (S*partina patens*). The use of additional species to increase habitat diversity will be considered. The approved estimated cost for construction implementation is $1,864,000 (2003) consisting of $1,398,000 Federal and $466,000 non-Federal. The Division Commander approved the project on August 9, 2001 under the continuing authority of Section 204, Water Resources Development Act of 1992, as amended.

Local Cooperation. The sponsor shall contribute 25 percent of project costs which include implementation of the authorized improvements as well as planning, engineering, design, supervision and administration, monitoring, and other activities associated with implementation, but does not include betterments. The non-Federal contribution will consist of credit for required lands, easements, relocations, and rights-of way; credit for participation on the Project Coordination Team; and cash.

Operations and results during fiscal year. New Work: The plans and specifications phase was completed at a cost of $10,747, including advertisement and award of the construction contract. Construction was initiated at a Federal cost of $584,043 and a contributed funds cost of $278,927.

Condition at end of fiscal year. The PCA was executed in November 2002. The construction contract for the sill was awarded in February 2003 and is scheduled to be completed in FY 2004. Dredged material, in connection with a maintenance dredging

contract, will be placed in the site in FY 2004. After settling, the site will be graded and planted in marsh grass in FY 2005. Monitoring will continue through FY 2008.

35. STANLY COUNTY WASTEWATER INFRASTRUCTURE, N.C.

Location. The project is located in Stanly County, in mid-southern North Carolina about 26 miles northeast of Charlotte. (See USGS quadrangle sheets, Norwood, Stanfield, Mt. Pleasant, and Albemarle).

Existing project. The county desires to upgrade a substandard wastewater system at three elementary schools, including a wastewater pumping station, 20,000 feet of force main and 1,700 feet of gravity sewer. The county is predominately rural and unemployment is relatively high. In much of the county, basic infrastructures such as water lines and highways necessary to attract industry are lacking. Without major infrastructure improvements, quality of life in many of the communities in the county will continue to fall well short of the rest of the Nation. The estimated project cost is $3,500,000 (2003), including $2,625,000 Federal and $875,000 non-Federal. This project is authorized by Sec 219(f) of the WRDA of 1992, as amended and Section 108(d) of the FY 2001 Omnibus Appropriations Act which provides "$8,900,000 for wastewater Infrastructure, Stanly County, North Carolina".

Local cooperation. The sponsor shall contribute 25 percent of the total cost of the project, estimated at $875,000. Project costs include implementation of the authorized improvements as well as planning, engineering, design, supervision and administration, monitoring, and other activities associated with implementation, but does not include betterments. The non-Federal contribution will consist of credit for required lands, easements, relocations, rights-of way, and borrow or disposal areas and participation on the project coordination team.

Operations and results during fiscal year. New Work: Preparation of a decision document for replacement of a wastewater pumping station and associated force main in the Town of Norwood to benefit Aquadale School cost $6,800.

Condition at end of fiscal year. The decision document for replacement of a wastewater pumping station and associated force main in the Town of Norwood to benefit Aquadale School was approved in August 2003. The project cooperation agreement is scheduled for preparation and execution in FY 2004.

36. REGULATORY PROGRAM

Cost for the period was $4,941,530, including $4,045,040 for Permit Evaluation, $882,903 for Enforcement, and $13,587 for Environmental Impact Statement preparation.

General Investigations

37. SURVEYS

Cost for the period was -$95,111 for navigation studies, $180,141 for flood damage prevention studies, $856,770 for shoreline protection studies, $44,353 for watershed/ecosystem restoration studies, $73,686 for Special Investigations, $1,299 for FERC License Review, $14,822 for Interagency Water Resources Development, $3,042 for National Estuary Studies, $2,134 for North American Waterfowl Management, $1,043 for Cooperation With Other Water Resource Agencies, and $122,255 for Planning Assistance To States. Contributed funds cost was $95,111 for navigation studies, $92,642 for flood damage prevention studies, $899,568 for shoreline protection studies, and $97,756 for Planning Assistance To States.

38. COLLECTION AND STUDY OF BASIC DATA

Flood plain management information studies, as authorized by Section 206, 1960 Flood Control Act, as amended, provide information, technical assistance, and guidance in identifying the magnitude of the flood hazard and for planning wise use of the flood plain. Direct response and assistance are provided to states, Indian tribes, and local governments without charge and to Federal agencies and private persons on a cost reimburseable basis. Total costs for the period were $197,344. Total costs to September 30, 2003 were $8,991,467. Contributed funds of $1,752 were expended for the New Hanover County Flood Study, the cost of which is fully paid by New Hanover County.

Hydrologic studies collect and analyze basic data on hydrologic, climatologic, and river morphology for general use in connection with Corps planning, design, construction, and operation of water resource projects. Total costs for the period were $8,566.

39. PRECONSTRUCTION ENGINEERING AND DESIGN

Preconstruction engineering and design (PED) was continued on: Manteo (Shallowbag) Bay, N.C. at a cost of $159,124; and Dare County Beaches, N.C. (Bodie Island) at a Federal cost of $192,861 and a contributed funds cost of $122,302.

TABLE 6-A (Continued) COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total cost to Sept. 30, 2003
1.	Atlantic Intracoastal	New Work:					
	Waterway between	Approp.	5,484,000	1,838,000	285,000	-	88,829,273[1]
	Norfolk, Va. & St.	Cost	5,862,703	1,741,229	508,841	8,100	88,823,583[1]
	John River, Fla.	Maint:					
	(Regular Funds)	Approp.	10,466,301	12,708,459	10,196,316	8,866,274	228,036,021[2]
		Cost	10,495,630	12,748,141	10,137,960	8,910,049	228,020,864[2]
	(Contributed Funds)	New Work:					
		Contrib	-	-	-	-	86,851
		Cost		-	-	-	86,851[3]
		Maint:					
		Contrib.	-		-	-	667,300
		Cost	-		-	-	667,300
2.	Beaufort Harbor, N.C.	New Work:					
	(Regular Funds)	Approp	-		-	-	818,040[4]
		Cost	-		-	-	818,040[4]
		Maint:					
		Approp.	113	21,372	198,752	49,894	4,657,742[5]
		Cost	113	21,372	198,752	49,894	4,657,742[5]
	(Contributed Funds)	New Work:					
		Contrib.	-		-	-	34,000
		Cost	-		-	-	34,000
		Maint:					
		Contrib.	-		-	-	326,225
		Cost	-		-	-	326,225
3.	Cape Fear River,	New Work:					
	N.C. above	Approp.	-		-	-	3,759,573[6]
	Wilmington	Cost	-		-	-	3,759,573[6]
		Maint:					
		Approp.	711,764	554,678	671,771	904,305	25,881,456[7]
		Cost	736,290	562,503	632,550	941,201	25,879,131[7]
4.	Lockwoods Folly	New Work:					
	River, N.C.	Approp.	-		-	-	241,272[8]
	(Regular Funds)	Cost	-		-	-	241,272[9]
		Maint:					
		Approp.	280,145	428,762	1,241,752	1,125,377	14,394,635
		Cost	280,758	429,509	1,228,252	1,138,877	14,394,635
	(Contributed Funds)	New Work:					
		Contrib.	-		-	-	92,650
		Cost	-		-	-	92,650[10]
5.	Manteo (Shallowbag)	New Work:					
	Bay, N.C.	Approp .	100,000	-	252,000	-	10,099,515[11]
	(Regular Funds)	Cost	36,942	82,667	234,903	23,464	10,099,373[11]
		Maint:					
		Approp.	3,611,526	6,233,018	6,285,371	8,458,373	118,192,744
		Cost	3,702,365	6,234,339	5,905,827	8,715,527	118,066,457
	(Contributed Funds)	Maint:					
		Contrib.	110,000	250,000	47,000	1,951,000	5,042,993
		Cost	58,402	310,098	51,004	164,868	3,205,687

TABLE 6-A (Continued) COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total cost to Sept. 30, 2003
6.	Morehead City Harbor, N.C.	New Work:					
	(Regular Funds)	Approp.	-		-	-	13,204,707[12]
		Cost	-		-	-	13,204,707[12]
		Maint:					
		Approp.	5,571,450	1,628,072	5,233,598	3,195,277	91,984,867[13]
		Cost	5,579,155	1,628,072	5,232,746	3,191,250	91,979,986[13]
	(Contributed Funds)	New Work:					
		Contrib.	-		-	-	2,731,996
		Cost	-		-	-	2,731,996
		Maint:					
		Contrib	-	-	1,484,546	-	3,321,324
		Cost	-	-	1,480,334	-	3,307,628
7.	Pamlico and Tar River, N.C.	New Work:					
		Approp.	-		-	-	674,651
		Cost	-		-	-	674,651
		Maint:					
		Approp.	-	93,500	-	3,034	1,316,947
		Cost	-	93,500	-	3,034	1,316,947
8.	Roanoke River, N.C.	New Work:					
		Approp	-		-	-	404,584
		Cost	-		-	-	404,584
		Maint:					
		Approp.		-	-	67,573	775,992
		Cost		-	-	67,573	775,992
9.	Rollinson Channel, N.C.	New Work:					
	(Regular Funds)	Approp.	-		-	-	589,105
		Cost	-		-	-	589,105
		Maint:					
		Approp.	225,907	294,875	327,974	23,896	3,523,645
		Cost	225,907	294,875	261,212	90,658	3,523,645
	(Contributed Funds)	Maint:					
		Contrib.	-		-	-	41,142
		Cost	-		-	-	41,142
10.	Silver Lake Harbor, N.C.	New Work:					
		Approp.	-		-	-	184,284
	(Regular Funds)	Cost	-		-	-	184,284
		Maint:					
		Approp.	1,369,945	776,321	1,037,596	113,192	12,112,869
		Cost	1,370,179	777,079	830,825	319,963	12,112,869
	(Contributed Funds)	Maint:					
		Contrib.	-		-	-	75,000
		Cost	-		-	-	75,000
11.	Stumpy Point Bay, N.C.	New Work:					
	(Regular Funds)	Approp	-	-	-	-	268,381
		Cost	-	-	-	-	268,381
		Maint:					
		Approp.	-		-	-	1,181,650
		Cost	-		-	-	1,181,650
	(Contributed Funds)	Maint:					
		Contrib.	-	387,400	38,500	-	699,900
		Cost	-	70,115	344,242	1,234	688,382

TABLE 6-A (Continued) COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total cost to Sept. 30, 2003
12.	Wilmington Harbor, N.C.	New Work:					
	(Regular Funds)	Approp.	8,364,000	53,574,000	63,665,000	41,801,000	215,904,426[14]
		Cost	7,372,585	52,805,188	65,639,752	41,980,976	215,825,702[14]
		Maint					
		Approp.	5,794,161	5,238,488	5,818,154	4,226,626	142,100,615[15]
		Cost	6,318,863	5,260,311	5,662,742	4,383,212	142,100,609[15]
	(Contributed Funds)	New Work:					
		Contrib.	9,239,100	14,084,200	22,350,800	16,002,000	74,005,353
		Cost	5,196,152	17,946,697	20,477,868	17,618,577	72,788,906
		Maint:					
		Contrib.	681,000	188,508	1,169,929	150,000	13,079,401[16]
		Cost	831,362	186,894	303,632	1,007,253	12,829,105[16]
13.	Adkin Branch,	New Work:					
	Kinston, N.C.	Approp.	4,000	-	-	2,000	249,000[17]
	(Regular Funds)	Cost	2,201	4,054	-	1,739	248,591[18]
14A.	B. Everett Jordon	New Work:					
	Dam and Lake, N.C.	Approp.	205,000	303,000	7,000	-17,000	149,905,287
	(Regular Funds)	Cost	194,376	397,779	30,469	-	149,899,097
		Maint:					
		Approp.	1,312,590	1,092,470	1,161,198	2,005,804	24,182,705[19]
		Cost	1,336,760	1,098,196	1,130,066	2,022,337	24,167,882[20]
	(Contributed Funds)	New Work:					
		Contrib.	-		-	-	1,764,735
		Cost	-		-	-	1,764,735
15.	Clinton Wastewater	New Work:					
	Treatment Plant,	Approp.	294,000	33,000	-38,000	3,000	1,012,000[21]
	Clinton, N.C.	Cost	245,785	29,754	10,188	5,064	1,009,918[22]
	(Regular Funds)	New Work:					
	(Contributed Funds)	Contrib.	-	-	-	-	144,000
		Cost	96,123	-	-2,500	-	135,150
16.	Moravian Creek,	New Work:					
	Wilkesboro, N.C.	Approp.	32,000	93,000	358,000	19,000	730,000[23]
	(Regular Funds)	Cost	3,500	90,647	367,709	20,479	728,234[24]
		New Work:					
	(Contributed Funds)	Contrib.	-	100,000	-	-	100,000
		Cost	-	65,870	-1,000	138	65,008
17A	Falls Lake, N.C.	New Work:					
	(Regular Funds)	Approp.	150,000	40,000	148,000	56,000	184,491,996
		Cost	426,215	7,398	254,020	71,381	184,312,946
		Maint:					
		Approp.	1,078,205	1,002,849	1,175,967	1,214,253	22,361,535[19]
		Cost	1,114,682	1,009,096	1,173,618	1,210,085	22,354,834[20]
	(Contributed Funds)	New Work:					
		Contrib.	8,456	-	-	-	259,724
		Cost		67,508	-	-	259,724
18.	Roanoke River Upper	New Work:					
	Basin VA. - Headwaters	Approp.	827,000	1,278,000	1,366,000	1,930,000	8,898,000
	Area	Cost	711,636	1,163,098	1,564,777	1,953,924	8,815,062
	(Regular Funds)	New Work:					
	(Contributed Funds)	Contrib.	-		-	-	446,000[25]
		Cost	-		-	-	416,064[25]
19A.	W. Kerr Scott Dam	New Work:					
	and Reservoir, N.C.	Approp.	-		-	-	8,841,326
	(Regular Funds)	Cost	-		-	-	8,841,326
		Maint:					
		Approp.	2,238,420	2,556,302	2,832,168	2,928,050	47,487,844[26]
		Cost	2,272,801	2,569,463	2,829,684	2,892,203	47,449,375[27]

TABLE 6-A (Continued) COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total cost to Sept. 30, 2003
22	Brunswick County Beaches N.C. (Cape Fear to N.C. - S.C. Line)	New Work: Approp.	168,000	4,192,000	433,000	828,000	5,923,114
	(Regular Funds)	Cost	125,158	3,638,607	1,001,854	801,315	5,869,048
	(Contributed Funds)	New Work: Contrib.	-	2,865,000	-	-	3,135,000
		Cost	-	3,638,607	31,932	12,457	2,905,366[28]
23.	Carolina Beach and Vicinity, N.C.	New Work: Approp.	180,000	2,098,000	27,000	129,000	26,419,533
	(Regular Funds)	Cost	60,190	2,051,688	278,241	141,003	26,418,746
	(Contributed Funds)	New Work: Contrib.	-	1,412,500	-53,751	-	16,535,096[29]
		Cost	35,787	1,195,884	168,187	-	16,526,739[29]
24.	Dare County Beaches, N.C. (Bodie Island)	New Work: Approp.	-	-	-	16,000	16,000
	(Regular Funds)	Cost	-	-	-	6,125	6,125
	(Contributed Funds)	New Work: Contrib.	-	138,000	162,000	25,000	325,000
		Cost	-	92,650	55,951	122,302	270,903
25.	West Onslow Beach and New River Inlet, N.C	New Work: Approp.	-	276,000	153,000	658,000	1,087,000
	(Regular Funds)	Cost	-	30,878	377,290	671,280	1,079,448
	(Contributed Funds)	New Work: Contrib.	-	48,500	233,333	217,000	498,833
		Cost	-	6,964	126,049	226,439	359,452
26.	Wrightsville Beach, N.C.	New Work: Approp.	-	45,000	753,000	-9,000	5,398,100
	(Regular Funds)	Cost	-65,421	154,803	756,726	-	5,397,891
	(Contributed Funds)	New Work: Contrib.	-	-30,384	500,061	-	3,720,610[30]
		Cost	50,363	-	500,061	-	3,720,610[30]
27A.	John H. Kerr Dam and Reservoir, VA&NC	New Work: Approp.	-	-	-		94,402,927
	(Regular Funds)	Cost	-	-	-		94,402,927
		Major Rehab: Approp.	1,201,000	3,664,000	2,652,000	4,894,000	12,411,000
		Cost	1,095,603	2,727,820	3,539,356	4,998,090	12,360,869
		Maint: Approp.	10,436,000	11,067,719	10,372,861	9,639,683	192,398,451[31]
		Cost	10,352,772	9,700,064	10,172,609	10,609,551	191,505,599[32]
	(Contributed Funds)	Maint: Contrib.	-	-	-	-	390,657
		Cost	5,249	-	-	-	70,096
27B.	Philpott Lake, Va.	New Work: Approp.	-	-	-	-	14,796,384
		Cost	-	-	-	-	14,796,384
		Maint: Approp.	2,378,002	5,181,257	4,085,806	1,493,244	58,379,905[33]
		Cost	2,374,066	2,718,703	4,880,486	3,168,128	58,349,464[34]
29.	Little Sugar Creek Habitat Restoration N.C.	New Work: Approp.	75,000	145,000	97,000	13,000	480,000[35]
	(Regular Funds)	Cost	52,624	156,678	89,036	35,839	479,729[36]
30.	Sea Turtle Habitat, Oak Island, N.C.	New Work: Approp.	184,000	4,595,000	-		5,000,000[37]
	(Regular Funds)	Cost	183,482	4,600,592	-		5,000,000[38]
	(Contributed Funds)	New Work: Contrib.	120,000	4,305,000	70,000	-	4,495,000
		Cost		4,307,821	118,831	55,494	4,482,146

TABLE 6-A (Continued) COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total cost to Sept. 30, 2003
31.	Little Sugar Creek	New Work:					
	Aquatic Ecosystem,	Approp.	151,000	190,000	136,000	27,000	563,000[39]
	Restoration, N.C.	Cost	152,649	167,302	145,923	52,672	562,617[40]
	(Regular Funds)						
32.	Roanoke Island Festival	New Work:					
	Park, Dare County, N.C.	Approp.	-	-	544,000	54,000	598,000[41]
	(Regular Funds)	Cost	-	-	542,671	53,638	596,309[42]
	(Contributed Funds)	New Work:					
		Contrib.	-	-	246,000	62,000	308,000
		Cost	-	-	245,787	52,674	298,461
33.	Wilson Bay Restoration,	New Work:					
	Dare County, N.C.	Approp.	45,000	-12,000	217,000	80,000	330,000
	(Regular Funds)	Cost	24,347	4,793	219,140	80,472	328,752
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-		-
		Cost	-	-	-		-
34.	Wanchese Marsh	New Work:					
	Creation and Protection	Approp.	16,000	65,000	48,000	591,000	888,000[43]
	Dare County, N.C.	Cost	15,236	43,943	67,199	594,790	886,043[44]
	(Regular Funds)	New Work:					
	(Contributed Funds)	Contrib. -	-	-	-	400,000	400,000
		Cost	-	-	-	278,927 -	278,927
35.	Stanly County Wastewater	New Work:					
	Infrastructure, N.C.	Approp.	-	-	420,000	-394,000	26,000
	(Regular Funds)	Cost	-	-	17,669	6,800	24,469
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	-
		Cost	-	-	-	-	-

1. Includes $198,707 for previous projects.
2. Includes $107,634 for previous projects.
3. Includes $13,934 refund to local interests.
4. Includes $25,000 for previous projects.
5. Includes $12,854 for previous projects.
6. Includes $149,119 for previous projects.
7. Includes $8,178 for previous projects.
8. Includes preauthorization study funds: FY64, $3,000; FY65, -$2,755; FY71, $8,000; FY72, $2,000; FY74, $9,000; FY75, $25,000; FY76 & 76T, $20,000; FY77, $2,500; FY78, $8,800; FY79, $3,000; FY81, $1,680; and preconstruction planning funds: FY80, $15,000 and FY81, $19,320.
9. Includes preauthorization study costs: FY64, $219; FY65, $26; FY71, $8,000; FY72, $1,448; FY73, $552; FY74, $9,000; FY75, $11,925; FY76 & 76T, $27,977; FY77, $7,598; FY78, $7,449; FY79, $4,351; FY81, $1,680; and preconstruction planning costs: FY80, $5,686 and FY81, $1,471.
10. Includes $69,145 refund to local interests.
11. Adjusted by $6,361 to reflect actual costs.
12. Includes $44,484 for previous projects.
13. Includes $284,557 for previous projects.
14. Includes $4,625,614 for new work on previous projects.
15. Includes $602,614 for previous projects.
16. Includes refunds to local interests: FY78, $92,374; FY79, $8,000; FY80, $14,007; FY81, $1,847; FY82, $2,823; FY85, $60,000.
17. Includes preauthorization study funds: FY92, $40,000 and preconstruction planning funds: FY95, $5,000; FY96, $102,000; FY97, $109,000; FY98, $24,000; FY99, $11,000; FY00, $4,000. Does not include $219,477 of FY67-FY81 funds for an earlier study and design that was deauthorized 18 September 1981.
18. Includes preauthorization study costs: FY92, $39,626; FY93, $563; FY94 $414; FY95 $523 and preconstruction planning costs: FY95, $682; FY96, $57,527; FY97, $82,889; FY98 $37,471; FY99 $22,029; and FY00, $2,201. Does not include $219,477 of FY67-FY82 costs for an earlier study and design for a project deauthorized 18 September 1981.
19. Includes maintenance and operation of Dams funds: FY87, $66,678; FY88, $75,000; FY89, $73,000; FY90, $54,000; FY91, $97,200; FY92, $79,000; FY93, $80,300; FY94, $67,800; FY95, $153,900.
20. Includes maintenance and operation of Dams costs: FY87, $66,678; FY88, $75,000; FY89, $73,000; FY90, $54,000; FY91, $97,200; FY92, $79,000; FY93, $80,300; FY94, $67,800; FY95, $153,900.

21. Includes preauthorization study funds: FY82, $10,000; FY83, $85,000; FY84, $70,000; FY85, $35,000; FY86, $45,000; FY87, $30,000; FY88, $1,000; FY89, $55,000; FY90, $85,000; FY92, $39,484 and preconstruction planning funds: FY92, $516; FY94, $40,000; FY95, $75,000; FY96, $61,000; FY97, $10,000; FY98, $14,000 and FY99, $11,910.

22. Includes preauthorzation study costs: FY82, $4,828; FY83, $76,218; FY84, $61,709; FY85, $41,994; FY86, $36,550; FY87, $49,888; FY88, $3,562; FY89, $30,816; FY90, $32,657; FY91, $63,108; FY92, $50,468; FY93, $3,024; FY94, $662 and preconstruction planning costs: FY94, $25,758; FY95 $70,987; FY96, $27,117; FY97, $41,023; FY98, $21,990; and FY99 $25,551.

23. Includes preauthorization study funds: FY91, $70,000; FY92, $15,000; FY93, $3,000; FY94, $35,000; FY95, $4,543 and preconstruction planning funds: FY95, $457; FY96, $20,000; FY97, $55,000; FY98, $15,000; FY99, $10,000 and FY00, $32,000.

24. Includes preauthorization study costs: FY91, $12,573; FY92, $69,544; FY93, $57; FY94, $32,103; FY95, $13,311; FY96, -$45 and preconstruction planning costs: FY96, $11,317; FY97, $26,257; FY98, $45,357; FY99, $15,425; and FY 00, $23,500.

25. Adjusted in FY2000 report to remove funds and costs for reimbursable, support for others work on the low water bridges; should not have been included in the FY90 - FY99 report.

26. Includes Special Recreation Use Fees funds: FY74, $4,000; FY75, $5,500; FY76 & 76 T, $3,600; FY 77, $5,800; FY78, $7,200; FY79, $8,000; FY80, $10,000; FY81, $10,000; FY82, $11,040; FY83, $7,000; FY84, $9,000; and maintenance and operation of Dams funds: FY87, $66,678; FY88, $75,000; FY89, $73,000; FY90, $54,000; FY91, $97,200; FY92, $79,200; FY93, $80,300; FY94, $67,800; FY95, $153,900.

27. Includes Special Recreation Use Fees costs: FY74, $4,000; FY75, $4,400; FY76 & 76T, $4,666; FY 77, $5,193; FY78, $6,824; FY79, $7,506; FY80, $11,312; FY81, $9,688; FY82, $9,727; FY83, $7,000; FY84, $8,444; FY85, $2,379; and maintenance and operation of Dams costs: FY87, $66,678; FY88, $75,000; FY89, $73,000; FY90, $54,000; FY91, $97,200; FY92, $79,200; FY93, $80,300;FY94, $67,800; FY95, $153,900.

28. Includes $116,508 refund to local interests and prior to FY77 costs of $31,161 for Ocean Isle, $49,731 for Long Beach, $41,443 for Yaupon Beach and $31,157 for Sunset Beach.

29. Includes refunds to local interests: FY83, $400,000; FY84, $128,345; FY85, $82,600.

30. Includes $61,585 refund to local interests.

31. Includes Special Recreation Use Fees funds: FY74, $35,000; FY76 & 76T, $48,000; FY77, $51,400; FY78, $115,100; FY79, $63,000; FY80, $60,000; FY81, $80,000; FY82, $67,160; FY83, $77,759; FY84, $73,000; and maintenance and operation of Dams funds: FY79, $167,646; FY87, $66,678; FY88, $75,000; FY89, $73,000; FY90, $54,000; FY91, $97,200; FY92, $79,000; FY93, $80,300; FY94, $67,800; FY95, $153,900; FY00, $475,769.

32. Includes Special Recreation Use Fees costs: FY75, $35,000; FY76 & 76T, $13,606; FY77, $85,692; FY78, $114,604; FY79, $1,120; FY80, $118,718; FY81, $83,760; FY82, $67,160; FY83, $77,759; FY84, $67,850; FY85, $5,149; and maintenance and operation of Dams costs: FY79, $167,350; FY80, $296; FY87, $66,678; FY88, $75,000; FY89, $73,000; FY90, $54,000; FY91, $97,200; FY92, $79,000; FY93, $80,300; FY94, $67,800; FY95, $153,900; FY00, $472,993.

33. Includes Special Recreation Use Fees funds: FY75, $47,000; FY78, $40,400; FY79, $22,000; FY80, $25,000; FY81, $20,000; FY82, $20,240; FY83, $21,000; FY84, $19,000; and maintenance and operation of Dams funds: FY87, $66,678; FY88, $75,000; FY89, $73,000; FY90, $54,000; FY91, $97,200; FY92, $79,000; FY93, $80,300; FY94, $67,800; FY95, $153,900; FY00, $18,748.

34. Includes Special Recreation Use Fees costs: FY75, $13,741; FY76 & 76T, $31,666; FY77, $1,593; FY 78, $39,771; FY79, $22,629; FY80, $24,619; FY 81, $20,381; FY82, $20,240; FY83, $21,000; FY84, $19,000; and maintenance and operation of Dams costs: FY87, $66,678; FY88, $75,000; FY89, $73,000; FY90, $54,000; FY91, $97,200; FY92, $79,000; FY93, $80,300; FY94, $67,800; FY95, $153,900.

35. Includes preauthorization study funds; FY98, $40,000; FY99, $110,000; FY00, $10,000 and preconstruction planning funds; FY00, $65,000; FY01, $145,000; FY02, $97,000.

36. Includes preauthorization study costs; FY98, $16,807; FY99, $128,745; FY00, $14,448 and preconstruction planning costs; FY00, $38,176; FY01, $156,678; FY02, $89,036.

37. Includes preauthorization study funds: FY97, $150,000; FY98, $30,000, FY99, $40,000 and preconstruction planning funds: FY99, $ 1,000; FY00, $184,000; FY01, $31,000.

38. Includes preauthorization study costs: FY97, $4,792; FY98, $167,663; FY99, $43,471; FY00, $4,074 and preconstruction planning costs: FY00 $179,408; FY01, $36,592.

39. Includes preauthorization study funds: FY99, $59,000; FY00, $111,000 and preconstruction planning funds: FY00, $40,000; FY01, $190,000.

40. Includes preauthorization study costs: FY99, $44,071; FY00, $112,681; FY01, $11,766 and preconstruction planning costs: FY00, $39,968; FY01, $155,536.

41. Includes planning design and analysis funds: FY02, $15,000 and construction implementation funds: FY02, $231,000.

42. Includes planning design and analysis costs: FY02, $15,000 and construction implementation costs: FY02, $230,787.

43. Includes preauthorization study funds: FY97, $25,000; FY98, $115,000; FY99, $28,000; FY00, $16,000; FY01, $14,000 and preconstruction planning funds: FY01, $51,000; FY02, $48,000.

44. Includes preauthorization study costs: FY98, $103,281; FY99, $61,594; FY00, $15,236; FY01, $17,869; FY02, $20 and preconstruction planning costs: FY01, $26,073; FY02, $67,179.

TABLE 6-B AUTHORIZING LEGISLATION

Acts	Project and Work Authorized	Documents
	ATLANTIC INTRACOASTAL WATERWAY BETWEEN NORFOLK, VA. AND ST. JOHNS RIVER, FLA.	
July 25, 1912	Original route of the Norfolk-Beaufort Inlet section.	H.D. 391, 62d Cong., 2d sess.
July 25, 1912	Purchase of canal.	H.D. 589, 62d Cong., 2d sess.
August 8, 1917	Change in route; following changes approved by Secretary of War, April 14, 1919. Albemarle Sound-Pamlico Sound section: Changed from "Alligator River-Rose Bay route" to "Alligator River- Pungo River route." Pamlico Sound-Neuse River section: Changed from "Pamlico Sound-Brant Shoal Neuse River route" to "Goose Creek-Bay River route."	H.D. 1478, 63d Cong., 3d sess. and H. D. 1136, 64th Cong., 1st sess.[1]
July 18, 1918	Alligator River-Pungo route (proposed land cut connecting the rivers): Changed from a straight line to a bent line approaching nearer town of Fairfield, N. C.	Approved by Secretary of War, May 15, 1919.
January 21, 1927	A 12-foot channel 90 feet wide from Beaufort to Cape Fear River, N.C., including highway bridge and tidal lock.[4]	H.D. 450, 69th Cong., 1st sess.
July 3, 1930	An 8-foot channel 75 feet wide from Cape Fear River to Winyah Bay, S.C.	H.D. 41, 71st Cong., 1st sess.
March 4,1933[2]	Construct a suitable bridge near Fairfield, N. C.	Rivers and Harbors Committee Doc. 5, 72d Cong., 1st sess.
June 26, 1934[3]	Operating and care of works of improvements provided for with funds from War Department appropriations for rivers and harbors.	
August 26, 1937	Increasing dimensions of waterway to 12 feet deep and 90 feet wide.	Rivers and Harbors Committee, Doc. 6, 75th Cong., 1st sess.[1]
August 26, 1937	A 12-foot side channel 90 feet wide to Swansboro.	Rivers and Harbors Committee, Doc. 16, 75th Cong., 1st sess.[1]
June 20, 1938	A yacht basin near Southport, 12 feet deep, 230 feet wide, and 450 feet long, with connecting channel.	H.D. 549, 75th Cong., 3d sess.[1]
June 20, 1938	A 6-foot channel 90 feet wide from New River Inlet to Inland Waterway.	H.D. 691, 75th Cong., 3d sess.[1]
March 2, 1945	Six mooring basins.[5]	H.D. 660, 76th Cong., 3d sess.[1]
June 30, 1948	A 12-foot channel in New River.[6, 11]	H.D. 421, 80th Cong., 1st sess.[1]
May 17, 1950	Vicinity of Fairfield - drainage.	H.D. 723, 80th Cong., 2d sess. [1]
May 17, 1950	Masonboro Inlet and connecting channels, including jetties at the inlet.[7,12] .	H.D. 341, 81st Cong., 1st sess.[1]
September 3, 1954	A 12-foot channel and basin in Peltier Creek.[8]	H.D. 379, 81st Cong., 1st sess. [1]
November 29, 1963, Sec. 107 July 14, 1960	A 6-foot channel 90 feet wide from Intracoastal Waterway to Bogue Inlet gorge.	Detailed Project Report April 1963.
April 7,1966 Sec. 107, July 14, 1960	An 8-foot channel 150 feet wide through New Topsail Inlet, thence a 7-foot channel 80 feet wide to Intracoastal Waterway by way of Old Topsail Creek; and a 7-foot channel 80 feet wide in Banks Channel from New Topsail Inlet, paralleling barrier beach, to Intracoastal Waterway.	Detailed Project Report July 1965.
November 7, 1966	Maintenance of a channel 6 feet deep, 80 feet wide, and 8,000 feet long, from the through channel of the waterway to and including a basin of the same depth, 130 feet wide and 180 feet long at Carolina Beach.	H.D. 515, 89th Cong., 2d sess.1
November 7, 1966	Maintenance of general navigation features of N.C. State Ports Authority Small Boat Harbor at Southport.	H.D. 514, 89th Cong., 2d sess.
December 31, 1970	Replacement of federally-owned and operated highway bridges at Coinjock, Fairfield, Wilkerson Creek, Hobucken, and Core Creek.	H.D. 142, 92nd Cong., 1st sess.

TABLE 6-B AUTHORIZING LEGISLATION

Acts	Project and Work Authorized	Documents
October 22, 1976	Modification of terms of local cooperation to allow for full Federal funding of Wilkerson Creek and Coinjock Bridges.	H.D. 597, 94th Cong., 2d sess.
August 13, 1968	Mitigation of damages caused by north jetty at Masonboro Inlet.	Approved by OCE Oct. 2,1980
February 18, 1982, Sec. 107 July 14, 1960	An 8-foot channel 150 feet wide through Carolina Beach Inlet to the Intracoastal Waterway.	Detailed Project Report June 1980
September 7, 1983, Sec. 107 July 14, 1960	An 8-foot channel 150 feet wide from the gorge in Bogue Inlet through the ocean bar.	Detailed Project Report May 1983
November 17, 1986	Modification of terms of local cooperation to allow for full Federal funding of Core Creek, Hobucken and Fairfield Bridges.	
	BEAUFORT HARBOR, N.C.	
March 3, 1881	A 9-foot channel 200 feet wide through Bulkhead Channel to Beaufort; a 6-foot channel 100 feet wide to North River and Core Sound; and construct jetties on Shackleford Point.	Annual Report, 1881, p.1013
March 2, 1907	Repairs to Fort Macon jetties and additional jetties and shore protection.	Specified in act.
March 3, 1925	Bulkhead across Bird Shoal.	Rivers and Harbors Committee Doc. 8, 68th Cong., 2d sess.1
July 3, 1930	Increase in depth to 12 feet in Bulkhead Channel, Gallants Channel, and in front of Beaufort.	H.D. 776, 69th Cong., 2nd sess.1
March 2, 1945	Increase in width and length of basin in front of Beaufort, all to 12 feet deep.	H.D. 334, 76th Cong., 2nd sess.1
May 17,1950	Increase in depth to 12 feet and in width to 100 feet in Taylors Creek; transfer to Beaufort Harbor project.	H.D. 111, 81st Cong., 2nd sess.1
May 21, 1965, Sec. 107 July 14, 1960	Channels 15 feet deep, 100 feet wide in Bulkhead, Gallants and Taylors Creek channels, and through turning basin in front of Beaufort; and harbor of refuge in Town Creek, 12 feet deep, 400 feet wide and 900 feet long connected to Gallants Channel by channel 12 feet deep, 150 feet wide and 1,400 feet long.	Detailed Project Report April 1965
August 12, 1983 Sec. 107 July 14, 1960	A channel 14 feet deep, 70 feet wide, and 1,900 feet long, from Bulkhead Channel to a turning basin 14 feet deep, 150 feet wide, and 300 feet long near the upper end of Morgan Creek.	Detailed Project Report June 1983

TABLE 6-B AUTHORIZING LEGISLATION

Acts	Project and Work Authorized	Documents
	SILVER LAKE HARBOR, N. C.	
July 3, 1930	Entrance channel, 5 feet deep and 50 feet wide, from Pamlico Sound to the 3-foot contour in the lake, and training wall at entrance.	Rivers and Harbors Committee Doc. 3, 70th Cong., 1st sess.
October 17, 1940	Channel, 10 feet deep, and anchorage basin of same depth, 100 feet wide across Big Foot Slough and 60 feet wide in entrance.	H.D. 325, 76th Cong., 1st sess.[1]
February 7, 1967, Sec. 107 July 14, 1960	Basin depth of 12 feet in Silver Lake Harbor; channels 12 feet deep, 150 feet wide, in Teaches Hole and Big Foot Slough Channels and across Bluff Shoal; entrance channel, same depth, 60 feet wide; and training wall on south side of entrance channel.	Detailed Project Report July 9, 1965
	WATERWAY CONNECTING PAMLICO SOUND AND BEAUFORT HARBOR, N. C.	
August 30, 1935[9]	A 7-foot channel 75 feet wide from Pamlico Sound to Beaufort Harbor via Wainright Channel.	H.D. 485, 72d Cong., 2d sess.[1]
August 26, 1937	A7-foot channel 75 feet wide to Atlantic.	Rivers and Harbors Committee Doc. 92, 74th Cong., 2d sess.[1]
March 2, 1945	Channels, 7 feet deep, 75 feet wide, at east and west ends of Harkers Island and side channel 5 feet deep, 75 feet wide, with basin 150 by 130 feet, same depth, at Davis.	H.D. 99, 77th Cong., 1st sess.[1]
March 2, 1945	A 7-foot side channel 75 feet wide, with basin 200 feet by 500 feet, same depth, at sea level.	S.D. 247, 77th Cong., 2d sess.[1]
May 17,1950	A6-foot side channel 60 feet wide, with basin 100 feet by about 600 feet, same depth, at Marshallberg.	H.D. 68, 81st Cong., 1st sess.[1]
July 11, 1963, Sec. 107 July 14, 1960	A side channel 7 feet deep, 70 feet wide to local harbor at Cedar Island and an access channel 6 feet deep, 60 feet wide and about 400 feet long to a basin same depth, 60 by 100 feet.	Detailed Project Report Dec.12, 1962
September 22, 1967, Sec. 107 July 14, 1960	An entrance channel 6 feet deep, 60 feet wide, from Back Sound to harbor of refuge 120 by 250 feet, same depth, at west end of Harkers Island in Brook Creek.	Detailed Project Report March 13, 1967
February 17, 1969, Sec. 107 July 14, 1960	A channel 7 feet deep, 70 feet wide, from existing side channel at Atlantic to a basin 600 by 180 feet, same depth, with a breakwater, between mouth of Little Port Brook and White Point.	Detailed Project Report December.21, 1967
April 3, 1975, Sec. 107 July 14, 1960[10]	Deepening the existing 5-foot channel and basin at Davis to 7 feet.	Detailed Project Report Feb. 8, 1974

1. Contains latest published maps.
2. Public Law No. 443, 72d Cong.
3. Permanent Appropriations Repeal Act.
4. Tidal lock in land cut between Myrtle Sound and Cape Fear River, deauthorized September 23, 1986, under authority of Sec. 12, PL93-251.
5. Deauthorized August 5, 1977, under authority of Sec. 12, PL 93-251.
6. A12-foot by 90-foot channel in New River from Intracoastal Waterway to and including a basin at Jacksonville, N. C.
7. Jetties on each side of Masonboro Inlet.
8. A 6-foot by 50-foot channel provided under Section 3,River and Harbor Act of March 2, 1945; 12-foot by 90-foot project deauthorized November 17, 1986, under authority of 1002, PL99-662.
9. Included in the Public Works Administration Program January 3, 1934.
10. Deauthorized by the Chief of Engineers March 31, 1982.
11. Deauthorized January 1, 1990, under authority of Sec. 1001(b)(1), PL99-662.
12. Training wall at Masonboro Inlet deauthorized April 5, 1999 under authority of Sec. 1001 (b)(1), PL99-662.

TABLE 6C OTHER AUTHORIZED NAVIGATION PROJECTS

Project	For Last Full Report See Annual Report for	Cost to September 30, 2003 Construction	Operation and Maintenance
Aquatic Plant Control[1] (R & H Act of 1958 and 1962)	1969	70,664	
Aquatic Plant Control (R & H Act of 1965)[1,6]	2002	958,800	31,809
Atlantic Beach Channels, N.C.[7]	2002	517,995	528,595
Avon Harbor, N.C.[1]	1999	74,096	1,821,129
Bay River, N.C.[1]	1950	44,382	49,627
Belhaven Harbor, N.C.[1.]	1998	126,687	773,175
Black River, N.C.[1]	1969	12,358	124,846
Cashie River, N.C.[1]	1950	40,403	15,905
Channel Connecting Thoroughfare Bay with Cedar Bay, N.C.[1]	1975	69,610	25,615
Channel From Back Sound to Lookout Bight, N.C.[1]	2001	88,328	3,375,794
Channel from Pamlico Sound to Rodanthe, N.C.[1]	1998	42,029	853,925
Chowan River, N.C.	1950		
Contentnea Creek, N.C.[1]	1941	64,395	32,247
Drum Inlet, N.C.[1]	1999	166,119	3,725,663
Edenton Harbor, N.C.[1]	1960	73,750	47,642
Far Creek, N.C.[1]	1999	164,642	2,311,371
Fishing Creek, N.C.[1]	1922	22,715	8,633
Knobb's Creek, N.C.[1,2]	1961 [3]	80,500	48,969
Mackay Creek, N.C.[1]	1938 [3]	13,375	6,273
Neuse River, N.C.[1]	1999	477,223[5]	336,747
Newbegun Creek, N.C.[1]	1928 [3]	4,802	247
Northeast Cape Fear River, N.C.[1]	1950	10,688	61,139
Ocracoke Inlet, N.C.[1]	2001	346,240	1,032,786
Pembroke Creek, N.C.[1]	1976	60,000	
Perquimans River, N.C.[1]	1910 [3]	13,750	414
Scuppernong River, N.C.[1]	1950	81,164	92,825
Shallotte River, N.C.[1]	2002	18,181	718,163
Smith's Creek (Pamlico County), N.C.[1]	1989	113,273	55,771
Smiths Creek (Wilmington), N.C.[1]	1950	8,507	18
South River, N.C.[1]	1936	12,452	23,686
Stumpy Point Bay, N.C.[1]	1999	268,381	1,453,941
Swift Creek, N.C.[1]	1940	1,600	5,422
Trent River, N.C.[1,4]	1968	115,199	143,579
Wallace Channel, Pamlico Sound, N.C.[1]	1965	132,834	85,299
Waterway Connecting Pamlico Sound and Beaufort Harbor, N.C.	2000	502,567	4,160,783
Waterway Connecting Swanquater Bay with Deep Bay, N.C.[1]	1997	751,099	193,880
Waterway - Norfolk, Va. to Sounds of N.C.	1976	751,196	2,893,812
Wrights Creek N.C.[1]	1984	68,325	166,602

1. Completed.
2. Transferred from Norfolk District (FY1970 Meherrin River, N.C., transferred to Norfolk District.)
3. Report of Norfolk District.
4. 8-foot modification deauthorized August 5, 1977, under authority of Sec. 12, PL93-251
5. Includes $1,959 refund to local interests Dawson Creek, N.C.
6. Includes $2,369 refund to local interests in FY 82.
7. Includes $2,055 refund to local interests.

TABLE 6D OTHER AUTHORIZED SHORE PROTECTION PROJECTS

Project	For Last Full Report See Annual Report For	Cost to September 30, 2003 Construction	Cost to September 30, 2003 Operation and Maintenance
Fort Fisher and Vicinity, N.C.	1997	5,966,730	__
Fort Macon Park, N.C.[1]	1973	620,000	__

1. Uncompleted portion of project was deauthorized November 17, 1986, under authority of Sec. 1002, PL99-662.

TABLE 6EOTHER AUTHORIZED ENVIRONMENTAL RESTORATION PROJECTS

Project	For Last Full Report See Annual Report For	Cost to September 30, 2003 Construction	Cost to September 30, 2003 Operation and Maintenance
Battery Island Bird Habitat Preservation, N.C. (CAP Section 204)	2002	1,220,850	__
Cape Fear L&D No.1 Fish Ladder, N.C. (CAP Section 1135)	2002	63,000	__

TABLE 6E OTHER AUTHORIZED FLOOD CONTROL PROJECTS

Project	For Last Full Report See Annual Report for	Cost to September 30, 2003 Construction	Operation and Maintenance
Ararat River, Mount Airy, N. C. [1]	1987	4,901,854	—
Black River, Harnett County, N. C. [1]	1984	475,574	—
Blackberry Creek, Henry Country, Va. [1]	1994	22,870	—
Broad Creek, Beaufort County, N. C. [1]	1972	283,846	—
Conetoe Creek, N. C. [1]	1960	29,867	—
Contentnea Creek, N. C. [1]	1939-1943 & 1958	50,889	—
Core Creek, N. C. [1]	1965	236,223[7]	—
Dan River, Madison Wastewater Treatment Plant, N. C. [1]	1989	175,315	—
Danville (Southside Wastewater Treatment Plant) Va. [1]	1999	279,562	—
Deep Creek, Edgecombe County, N. C. [1]	1984	394,055	—
Ellerbe Creek, Durham County, N. C. [1]	1963	223,413	—
Ellis Swamp, Gates County, N. C. [1]	1971	138,117[4]	—
Filberts Creek, N. C. [1]	1970	37,777[3]	—
Gapway Swamp, N. C. & S. C. [1,8]	1969	374,005	—
Gardners Creek, N. C. [1]	1972	54,597[6]	—
Genoa Sewer Facility, Wayne County, N. C. [1]	1985	167,800	—
Goldsboro, Neuse River, N.C.	1984	50,430	623,687
Hamlet City Lake, N.C.	2002	3,019,828	—
Joyce Creek, Camden County, N. C. [1]	1984	606,189[12]	—
King (Water Plant), N.C. [1]	1998	270,227	—
Leesville, Va. [1]	1989	367,755	—
Leith's Creek, Scotland County, N. C. [1, 10]	1982	430,951	—
Lick Run, Roanoke, Va. [1]	1974	1,280,317	—
Little Rockfish Creek, Hope Mills, N. C. [1]	1978	113,657	—
Little Sugar Creek, Charlotte, N. C. [1, 8]	1979	763,022	—
Lower Creek, Lenoir, N.C. [1]	1997	638,500	—
Neuse River, Oriental, N. C. [1]	1992	370,446	—
New River, N.C. [1]	1950 & 1956	51,896	—
New River, Onslow County, N. C. [1]	1972	580,977	—
N.C. Aquarium, Dare County, N.C. [1]	1998	708,000	—
Northeast Cape Fear River, N. C. [1]	1961	95,873	—
Old Field Swamp, N. C. [1, 8]	1969	86,600	—
Oriental, South Avenue, N.C. [1]	1997	542,800	—
Pantego Creek and Cucklers Creek, N. C.	1963	517,948	—
Pasquotank River, N. C	1960	80,931	—
Perquimans River, N. C. [1]	1961	6,366	—
Pungo Creek, N. C. [1]	1972	582,270	—
Pungo River, N. C. [1]	1971	296,602[2,3]	—
Simmons Bay, N. C. [8]	1963	186,435	—
South Creek, N. C. [1]	1971	194,367[5]	—
Stuart, Va. [1]	1989	2,220,440	—
Swift Creek, Pitt and Craven Counties, N. C. [1]	1966	611,096	—
Tar River, N. C.	1964	81,266	61,473
Tar River, N. C. [1]	1947	18,624	—
Tar River and Tributaries, N. C. [1]	1943	22,660	—
Tar River, Princeville, N. C. [1]	1967	390,249	—
Thomasville (Walnut Street), N.C. [1]	1996	59,919	—
Trent River, N. C. [1]	1953	64,769	—
Waccamaw River & Seven Creeks, N. C. & S. C. [1 8]	1961	67,821	—
White Oak Dike, Bladen and Pender Counties, N.C. [1]	1963	214,286	—

1. Project authorized by Chief of Engineers under continuing authority.
2. Includes $17,356 refund to local interests.
3. Adjusted to reflect actual cost.
4. Includes $1,519 refund to local interests.
5. Includes $387 refund to local interests
6. Includes $338 refund to local interests
7. Adjusted $3,000 to include preauthorization cost prior to FY 1960.
8. Transferred from Charleston District, FY 1980.
9. Reclassified to inactive category February 3, 1976.
10. Transferred from Charleston District, FY 1984.
11. Includes $1,057 refund to local interests.

TABLE 6-G DEAUTHORIZED PROJECTS

Project	For Last Full Report See Annual Report For	Date Deauthorized	Federal Funds Expended	Contributed Funds Expended
Adkin Branch, N. C.	1982	8 Sept. 81[2]	219,477	__
AIWW- Masonboro Inlet - Training Wall	1998	5 April 99[8]	__	__
AIWW- Mooring Basins	None	5 Aug. 77[1]	__	__
AIWW- New River Onslow County, N. C.	1990	1 Jan. 90[6]	__	__
AIWW- Peltier Creek, N. C. 12-foot project	None	17 Nov. 86[5]	__	__
AIWW- Tidal Lock in Snows Cut	None	23 Sept. 86[1]	__	__
Bodie Island, N. C.	None	5 Aug. 77[1]	__	__
Cape Lookout, N. C.	None	5 Aug. 77[1]		
Conoho Creek, N. C.	1974	31 Mar. 78[2]	79,782	__
Contentnea Creek, N. C.	1972	31 Mar. 78[3]	4,250	__
Davis, N. C.	1982	31 Mar. 82[4]	25,419	__
Fort Macon State Park, N. C., Remaining Work	1973	17 Nov. 86[5]	__	__
Harbor of Refuge, Cape Lookout, N. C.	1934	1 Nov. 81[1]	1,396,653	__
Hominy Swamp, N. C.	1973	31 Mar. 78[2]	107,472	__
Howards Mill Lake, N.C.	1980	9 Jul. 95[8]	698,400	__
Hyde County Dike, N. C.	None	5 Aug. 77[1]	__	__
MacKay Creek, N.C.	1976	31 Mar. 78[2]	130,900	__
Mann's Harbor, N. C.	1973	31 Mar. 78[4]	7,265	__
Mill Creek, N. C.	1973	31 Mar. 78[2]	116,395	__
Mocassin Swamp, N. C.	1973	31 Mar. 78[2]	36,680	__
Morehead City Harbor, N. C. Jetties at Beaufort Inlet	1986	17 Nov. 86[5]	__	__
Moyock Creek, N. C.	1973	31 Mar. 78[2]	64,416	__
Nahunta Swamp, N. C.	1973	31 Mar. 78[2]	65,673	__
Neuse River, N. C.	None	31 Mar. 78[4]	30,911	__
Neuse River Barrier, N. C.	None	5 Aug. 77[1]	__	__
Neuse River, 300 ft.-wide channel in front of New Bern, N.C.	None	5 Aug. 77[1]	__	__
North River Dike, N. C.	None	5 Aug. 77[1]	__	__
Ocracoke Inlet Jetty, N. C.	1986	17 Nov. 86[5]	__	__
Ocracoke Island, N. C.	1975	17 Nov. 86[5]	129,592	__
Randleman Lake, N.C.	1994	16 Apr. 02[8]	4,786,088	__
Reddies River Lake, N.C.[9]	1980	16 Apr. 02[8]	985,800	__
Roanoke River, 50 mile long Channel from Palmya Landing to Weldon, N.C.	1983	17 Nov. 86[5]	__	__
Roaring River Lake, N.C.[9]	1978	16 Apr. 02[8]	370,000	__
Rockfish Creek, N. C.	1976	31 Mar. 78[2]	157,721	__
Scuppernong River, N. C.	1987	20 Apr. 88[2]	234,032	__
Six Runs Creek, N. C.	1971	31 Mar. 78[2]	64,977	__
Sweetwater Creek, N. C.	1973	31 Mar. 78[2]	64,584	__
Thoroughfare Swamp, N. C.	1976	31 Mar. 78[2]	132,767	__
Topsail Beach and Surf City, N.C.	None	5 Aug. 77[1]		__
Tranters Creek, N. C.	1974	11 Jan. 85[2]	139,339	__
Trent River, Basins and Access Channels at New Bern, N.C.	None	5 Aug. 77[1]	__	__
Wilmington Harbor Widening and Deepening, N.C.	1990	1 Jan. 90[6]	__	__

1. Deauthorized under authority of Sec. 12, PL93-251.
2. Deauthorized pursuant to the continuing authority provided the Chief of Engineers under Sec. 205 of the 1948 Flood Control Act, as amended.
3. Deauthorized pursuant to the continuing authority provided the Chief of Engineers under Sec. 208 of the 1954 Flood Control Act.
4. Deauthorized pursuant to the continuing authority provided the Chief of Engineers under Sec. 107 of the R&HAct of 1960, as amended.
5. Deauthorized under authority of Sec. 1002, PL99-662.
6. Deauthorized under authority of Sec. 1001 (b)(1), PL99-662.
7. Cost-to-date included in remaining authorized portion of project (Engineering and Design only).
8. Deauthorized under authority of Sec. 1001(b)(2), PL99-662.

TABLE 6-H DAMS AND RESERVOIRS

See Section in Text	Project	Name	Nearest City	River	Miles Above Mouth	Height of Dam (Ft)	Type	Reservoir Capacity (acre-feet)	Power Development (kilowatts)	Construction	Estimated Cost Lands and Damages1	Total
14.	Cape Fear River Basin, N.C.	B.Everett Jordan[2]	Moncure, N.C.	Haw	4.3	112	E	753,500	-	89,186,000	58,414,000	147,600,000[3]
		Randleman[2,14]	Randleman, N.C.	Deep	85.0	110	E	108,000	-	62,300,000	61,700,000	124,000,000[13]
		Small reservoirs	-	Various	-	20 to 70+	E	923,000	-	-	-	38,454,000
17.	Neuse River Basin, N.C.	Falls[2]	Falls, N.C.	Neuse	-	92	E	335,620	-	91,334,000	91,666,000	183,000,000[4]
		Wilson Mills	Wilson Mills, N.C.	Neuse	-	81	CG,E	201,000	-	-	-	13,000,000
		Beulahtown	Kenly, N.C.	Little	-	50	E	81,000	-	-	-	9,300,000
		Bakers Mills	Princeton, N.C.	Little	-	53	E	36,000	-	-	-	6,600,000
		Little Buffalo	Kenly, N.C.	Little Buffalo Creek	-	51	E	13,000	-	-	-	1,100,000
		Buckhorn	Wilson, N.C.	Contentnea Creek	-	63	E	119,000	-	-	-	17,300,000
		Wiggins Mill	Wilson, N.C.	Contentnea Creek	-	42	E	35,000	-	-	-	6,700,000
		Stantonsburg	Stantonsburg, N.C.	Tisnot Swamp	-	36	E	48,000	-	-	-	5,100,000
		Great Swamp	Fremont, N.C.	Great Swamp	-	39	E	18,000	-	-	-	1,800,000
		Black Creek	Wilson, N.C.	Black Creek	-	33	E	17,000	-	-	-	1,500,000
		Aycock Swamp	Fremont, N.C.	Aycock Swamp	-	37	E	7,000	-	-	-	550,000
		Hillsboro	Durham, N.C.	Eno	-	136	E	123,000	-	-	-	8,100,000
		Orange	Durham, N.C.	Little	-	107	E	57,000	-	-	-	3,500,000
19.	Yakdin River Basin, N.C.&S.C.	W. Kerr Scott, N.C.	Wilkesboro, N.C.	Yadkin-Pee Dee	404.0	148	E	153,000	-	5,749,343	3,360,657	9,110,000
27.	Roanoke River Basin, Va. and N.C.	John H. Kerr, Va., and N.C.[2]	Boydton, VA	Roanoke	178.7	144	CG,E	2,808,000	204,000	67,529,000	24,521,000	92,050,000[5]
		Philpott, Va.[2]	Bassett, Va.	Roanoke	336.2	220	CG[11]	249,800	14,000	13,933,000	1,157,000	15,090,000
		Gaston, Va. and N.C.[6]	Roanoke Rapids, N.C.	Roanoke	144.9	108	CG,E	432,000	54,000	27,000,000	3,500,000	30,500,000
		Roanoke Rapids, N.C.[7]	Roanoke Rapids, N.C.	Roanoke	137.0	75	CG	59,300	83,000	31,300,000	800,000	32,100,000
		Smith Mountain, Va.[8]	Altavista, Va.	Roanoke	314.2	244	CG	825,000	41,000	28,000,000	3,800,000	31,800,000
		Leesville, Va.[9]	Altavista, Va.	Roanoke	293.7	95	CG.E	76,900	20,000	9,100,000	1,000,000	10,100,000
		Taber, Va.	Altavista, Va.	Roanoke	275.0	54	CG	34,000	12,000	8,000,000	1,700,000	9,700,000
		Melrose, Va.	Bookneal, Va.	Roanoke	262.9	110	CG,E	120,000	43,000	17,700,000	6,000,000	23,700,000[10]
		Randolph, Va.	Chase City, Va.	Roanoke	227.8	147	CG,E	350,000	48,000	22,100,000	4,700,000	26,800,000
		Stuart, Va. and N.C.	Spray, N.C.	Roanoke	297.2	138	E	163,000	15,000	9,000,000	1,100,000	10,100,000
		Schoolfield, Va. and N.C.	Danville, Va.	Roanoke	265.9	126	CG,E	248,000	80,000	27,800,000	6,400,000	36,000,000

1. Includes highway, railroad, and utility relocations.
2. For details, see individual report.
3. Includes $3,700,000 presently allocated to water supply to be reimbursed in the future by local interests and $44,000 cash contribution for construction of ranger security buildings.
4. Includes $13,637,000 presently allocated to water supply and $21,595,000 recreation and fish and wildlife to be reimbursed in the future by local interests.
5. Exclusive of transmission lines.
6. Construction completed in 1963 by Virginia Electric and Power Co.
7. Based on modified plan developed in fiscal year 1949. Construction completed June 1955 by Virginia Electric and Power Co.
8. Construction completed in February 1966 by Appalachian Power Co.
9. Construction completed in June 1963 by Appalachian Power Co.
10. Includes cost of earth dam on Whipping Creek.
11. Authorizing legislation provided for earth dam; concrete gravity dam constructed.
12. Includes $1,600,000 presently allocated to recreation and fish and wildlife.
13. Includes $74,058,000 presently allocated to water supply, $8,646,000 allocated to recreation and $8,296,000 to flood control to be paid by local interests during construction.
14. Deauthorized April 2002

Key
E.....Earth
CG.....Concrete-Gravity

TABLE 6-I RECONNAISSANCE AND CONDITION SURVEYS

Project	Date Survey Conducted
Beaufort Harbor, N.C.	February - September 2003
Rollinson Channel, N.C.	May, September 2003
Shallotte River, N.C.	October 2002 - February 2003
Silver Lake Harbor, N.C.	November 2002 - August 2003
Waterway Connecting Pamlico Sound and Beaufort Harbor, N.C.	December 2002; June, September 2003

NAVIGATION WORK UNDER SPECIALAUTHORIZATION
Navigation Activities CAP Section 107, Public law 86-645 (Preauthorization)

TABLE 6-J

Study Identification	Fiscal Period Cost
Edgewater Canal, Camden County, N.C.	58,116
Newport River, Carteret County, N.C.	25,372[1]
Shallotte River, Brunswick County, N.C.	2,569
Walter Slough, Dare County, N.C.	13,141
Section 107 Coordination Account	5,027

1. Includes $11,348 contributed funds cost.

ENVIRONMENTAL RESTORATION WORK - SPECIAL AUTHORIZATION
CAP Sections 1135, 206, 204, 933
(Preauthorization)

TABLE 6-L

Study Identification	Fiscal Period Cost
Lower Lockwoods Folly River, Brunswick County, N.C.	3,965[2]
Pleasant Green Road Dam Removal, Eno River Near Durham, N.C.	22,350[2]
Western Cary Streams Restoration, Cary, N.C.	946[2]
Section 1135 Coordination Account	120
Section 1135 Preliminary Restoration Plans	5,761
Section 206 Coordination Account	30,514
Section 206 Preliminary Restoration Plans	45,470
Section 204 Coordination Account	1,975

1. Sec. 1135 Project.
2. Sec. 206 Project.
3. Sec. 204 Project.
4. Sec. 933 Project.

FLOOD CONTROLWORK UNDER SPECIAL AUTHORIZATION
Flood Control Activities CAP Section 205,
Public Law 858, 80th Congress, as amended
(Preauthorization)

TABLE 6-L

Study Identification	Fiscal Period Cost
Ahoskie Creek, Hertford County, N.C.	15,991
Greens Mill Run, Greenville, N.C.	4,393
Hominy Swamp, Wilson, N.C.	188
Neuse River, Seven Springs, N.C.	42,159
White Marsh, Whiteville, N.C.	775
Section 205 Coordination Account	9,727
Section 14 Coordination Account	0

1. Sec. 14 Project.

CHARLESTON, S.C., DISTRICT*

This district comprises all of South Carolina (except local watersheds draining into the Savannah River). It embraces the drainage basins tributary to the Atlantic Ocean between Little River and Port Royal Sound, except watersheds of Mackey and Skull Creeks, and excluding Hilton Head Island.

IMPROVEMENTS

Navigation

Shore Protection

Flood Control

Emergency Bank Protection

Environmental Infrastructure

Multiple Purpose Projects Including Power

Miscellaneous

General Investigations

Tables

*All costs and financial statements for projects are listed at the end of this chapter. All other tables are referenced in text and also appear at the end of this chapter.

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Navigation

1. AQUATIC PLANT CONTROL, SC

Location. The project includes all public waters in the State of South Carolina.

Existing Project. The project provides for the control of noxious aquatic plant growths from public waters in the combined interest of navigation, flood control, drainage, agriculture, fish and wildlife conservation, and public health.

Local Cooperation. Local interests must agree to hold the United States free from damages that may occur from operations performed in connection with this project and contribute 50 percent of the total cost. The South Carolina Department of Natural Resources, Water Resources Division, is designated as the State's lead agency for aquatic plant management and meets local interest requirements.

Operations and results during fiscal year. Aquatic plants now infest approximately 11,100 acres, with the worst infestations occurring in the Cooper River, Back River Reservoir, and Lake Murray. During FY 03, 6,071 acres of aquatic plants in 17 water bodies were treated to control problematic growth. The total cost of control operations (non-Federal and Federal) in FY 03 was $633,045. Most of the control effort this year involved the stocking of 64,500 grass carp in Lake Murray to control 4,300 acres of hydrilla at a cost of $369,529. The total Federal share of work performed in FY 03 was $253,965.

2. ATLANTIC INTRACOASTAL WATERWAY BETWEEN NORFOLK, VA AND ST. JOHNS RIVER, FL (CHARLESTON DISTRICT)

Location. The project starts near Little River at the North Carolina-South Carolina state line and extends generally south along the coast of South Carolina 62 miles to Winyah Bay; thence 63.5 miles to Charleston; thence 84.5 miles to and including Port Royal Sound; a total of 210 miles. (See National Ocean Survey Charts Nos. 11513, 11521, 11531, 11534, and 11535.)

Previous projects. For further details see page 613 of Annual Report for 1932.

Existing project. The project provides for a waterway twelve feet deep and not less than 90 feet wide with a branch channel of the same dimensions to McClellanville and construction of three bridges crossing the waterway in Horry County, South Carolina. Existing project was completed in 1940; three bridges were completed in 1936. (See Table 7-B for authorizing legislation.)

Local cooperation. None required.

Terminal facilities. There are rail-water terminals at Georgetown, Charleston and Port Royal and numerous open-pile wharves mostly for shipping agricultural products, fish, oysters, pulpwood, wood products, and petroleum products. Marinas are located at convenient intervals along the waterway where limited supplies and repair facilities are available for both commercial vessels and pleasure craft. Facilities are considered adequate for existing commerce and recreation requirements.

Operations and results during fiscal year. New Work: None. Maintenance: Maintenance dredging was performed by Southern Dredging using a pipeline dredge in the AIWW from Georgetown to Little River during July – September 2003, removing 545,503 cubic yards of material, at a cost of $818,834. Costs of $67,719 were incurred for contract dike maintenance. Costs of $151,266 were incurred for mosquito abatement and trenching. The cost of operating the Snagboat *Snell* in the Myrtle Beach Canal area during August 2003 was $169,973. Condition and operation studies, natural resource management, project operations management, lands and damages, water control management, planning, engineering and design and supervision and administration costs were $585,776. Federal costs for the project were $1,793,568.

3. CHARLESTON HARBOR, SC

Location. The harbor is located on the coast of South Carolina about 15 miles south of the midpoint of the coastline, 50 miles southwest of Winyah Bay, SC, and 80 miles northeast of the mouth of Savannah River. (See National Ocean Survey Charts Nos. 11521 and 11524.)

Previous projects. For further details see page 1808 of the Annual Report for 1915; page 579 of the Annual Report for 1926; page 562 of the Annual Report for 1938; page 425 of the Annual Report for 1962; and page 7-2 of the Report for 1997.

Existing project. The project as authorized by the 1996 Water Resources Development Act provides for deepening of the entrance channel from 42 ft deep to 47 ft deep and the inner channels from 40 ft deep to 45 ft deep. Other improvements include realignment/widening of various channels/reaches, construction of a new turning basin opposite the future Daniel Island terminal, construction of a new contraction dike, reconstruction of two existing dikes and removal of a third existing dike. Removal of the east contraction dike on Daniel Island was completed in June 1999. Dredging of the Daniel Island Reach was completed in July 2000. The Entrance Channel dredging was completed in September 2001. Dredging in the Lower Harbor was completed in April 2002. Construction of dikes at the Clouter Creek disposal area continues. Dredging in the Upper Harbor started in May 2002 and is scheduled for

completion in May 2004. The entire project is scheduled for completion in June 2008. Ultimate project cost after 10% reimbursement will be $85,433,000 (Federal) and $53,267,000 (non-Federal) for a total project cost of $138,700,000 (fully funded). (See Table 7-B for authorizing legislation.)

Local cooperation. Requirements are described in full on pg 7-2 of the FY 99 Annual Report. The non-Federal partner is the South Carolina State Ports Authority. The Project Cooperation Agreement was executed on June 5, 1998.

Terminal facilities. The South Carolina State Ports Authority owns and operates four public terminals and a grain elevator in Charleston Harbor. These terminals offer more than two miles of berthing space, room enough for seventeen vessels at one time. The Ports Authority operates twenty-one container cranes, thirty rubber tire gantry cranes, twenty-three toplifters, nine emptyhandlers, and two traveling breakbulk gantry cranes. There are 1.4 million square feet of warehouse space with covered rail access and truck loading docks. In addition to both CSX and Norfolk Southern rail lines, over 150 truck carriers provide inland transportation for Charleston Harbor. Facilities for marine repairs and servicing are available at Detyens Shipyard, which operates two yards. The main shipyard is located on the Cooper River and the original, smaller shipyard is located on the Wando River. For further details see Port Series No. 13, 1987, Corps of Engineers.

Operations and results during fiscal year. New Work: Dredging was performed (a) by Marinex Construction Company using pipeline and hydraulic dredges in the Upper Harbor during October 2002 – September 2003, removing 2,572,568 cubic yards of material, at a cost of $10,304,205. Adjustments of -$459,141 were made for work performed in FY02 for dredging in the Lower Harbor. Costs of $30,000 were incurred for mosquito abatement and trenching at the Clouter Creek Disposal Area. Real estate costs, engineering and design and supervision and administration costs were $811,812. Federal costs were $8,315,502. Maintenance: Dredging was performed (a) by Marinex Construction Company using pipeline dredges in the Upper Harbor during October 2002 – September 2003, removing 660,935 cubic yards of material, at a cost of $1,594,975, and (b) by Norfolk Dredging using a clam/bucket dredge in the Lower Harbor during January – July 2003, removing 1,650,420 cubic yards of material, at a cost of $5,154,496, and (c) by Great Lakes Dredge and Dock in the Entrance Channel using a hopper dredge during January – March 2003, removing 708,405 cubic yards of material, at a cost of $1,811,268. Costs of $35,487 were incurred for work performed in FY02 for dredging of the lower reaches. Costs of $197,490 were incurred for trenching efforts at the Clouter Creek Disposal Area. Costs of $64,870 were incurred for mosquito abatement and trenching. Condition and operation studies, water control management, natural resource management, lands and damages , planning, engineering and design, and supervision and administration costs were $1,661,237. Federal costs for maintenance were $10,519,823.

4. COOPER RIVER, CHARLESTON HARBOR, SC

Location. Cooper River is located in Charleston and Berkeley Counties, SC, and empties into the Atlantic Ocean at Charleston (See National Ocean Survey Charts Nos. 11521 and 11524.)

Existing project. The major cause of the shoaling problem in Charleston Harbor was the diversion of fresh water from the Santee River through Pinopolis Dam into the salt water of Charleston Harbor, which caused density currents that trapped sediments resulting in a phenomenal rate of deposition. The most practical solution of the shoaling problem was to redivert most of the Santee River waters above Pinopolis Dam back into the lower Santee River through a canal beginning at Lake Moultrie and extending to the Santee River in the vicinity of St. Stephen, South Carolina. The project for Cooper River, as authorized by the 1968 River and Harbor Act, provided that the discharge through the existing Pinopolis Hydroplant be reduced to a flow which would not establish a density current in the harbor. This flow was estimated at 3,000 cubic feet per second (cfs) during the design phase of the project, but after operational tests, this flow is estimated at 4,500 cfs. The excess water impounded in Lake Moultrie is being directed through a new canal above St. Stephen, South Carolina, to enter the Santee River at a point well below the Lake Marion Spillway (Wilson Dam). A new hydroelectric facility was constructed on the new canal at the edge of the swamp adjacent to the Santee River. This plant replaces those features made less effective at Pinopolis through curtailment of flows. The average flow of 11,000 cfs at the new powerplant, plus the 4,500 cfs average release planned for Pinopolis, approximates the historical average flow at Pinopolis. The three generators at the new plant are rated at 28,000 kilowatts each, for a total of 84,000 kilowatts. In the interest of fish and wildlife resources of the area, the project includes a herring lift at the new powerhouse site and a fish hatchery. Construction as initiated March 1977. The power-on-line date was March 1985. The power plant, channels and canals, and attendant work were completed in FY 85. (See Table 7-B for authorizing legislation.)

Local cooperation. None required.

Operations and results during fiscal year. New Work: Funds of $-22,336 were revoked in order to financially close out the construction phase. Maintenance: Funds of $5,033,022 were spent for maintenance of completed work.

5. FOLLY RIVER, SC

Location. The project begins in Folly River and Folly Creek north of the Town of Folly Beach and follows a southwesterly

course into the Atlantic Ocean. (See National Ocean Survey Chart No. 11521.)

Existing project. The project provides for an entrance channel, eleven feet deep by 100 feet wide extending from the Stono River three miles through the ocean bar; a channel within Folly River nine feet deep and 80 feet wide, extending three miles downstream from U. S. Highway 171 to the confluence of Folly and Stono Rivers; and a channel within Folly Creek nine feet deep by 80 feet wide extending three miles downstream from Highway 171 to the confluence with the Folly River. The existing project was completed in FY 79. (See Table 7-B for authorizing legislation.)

Local cooperation. None required.

Operations and results during fiscal year. New Work: None. Maintenance: Maintenance dredging was performed (a) by the government-owned sidecaster dredge *Fry* in the entrance channel during May – June 2003, removing 64,000 cubic yards of material, at a cost of $361,550, and (b) by Cottrell Construction Corporation in the inside shoals by pipeline dredge during June – July 2003, removing 127,202 cubic yards of material, at a cost of $517,430. Condition and operations studies, environmental monitoring, planning, engineering and design and supervision and administrative costs were $102,589. Federal costs for the project were $981,569.

6. GEORGETOWN HARBOR, SC

Location. The harbor is located on the coast of South Carolina 50 miles northeast of Charleston Harbor and 90 miles southwest of the entrance to Cape Fear River, North Carolina. (See National Ocean Survey Chart No. 11532)

Previous projects. For further details see page 1806 of Annual Report for 1915; page 549 of Annual Report for 1938; and page 442 of Annual Report for 1944.

Existing project. The authorizations provide for a channel 27 feet deep with varying widths of 600 feet to 400 feet from the Atlantic Ocean to and including a turning basin at the U. S. Highway 17 bridge over Sampit River, with a side channel 2,400 feet long and not less than 200 feet wide leading to a turning basin at the upper end of the built-up portion of the city waterfront, a total of 17.9 miles. The project also provides for the continued maintenance to a depth of 18 feet and a width of 400 feet for the bypassed portion of Sampit River opposite the City of Georgetown. The existing project was completed in 1951. The jetties were completed in 1903 - 1904. (See Table 7-B for authorizing legislation.)

Local cooperation. None required.

Terminal facilities. Terminal facilities at the Port of Georgetown consist of one 600-foot concrete wharf, one 700-foot bulkhead adjacent to a paved outside storage area, and one 600-foot steel berth. There are 103,000 square feet of transit warehouse space, 36,400 square feet of covered transit storage sheds, and 25 acres of paved backup space. Mobile cranes with up to a 225-ton lifting capacity are available. The port is equipped with special handling facilities for metals, cement, salt, and forest products. On-terminal rail service is provided by CSX and the port is accessible via U.S. Highways 17, 521, 701 and Interstates 95,26, and 20. For further details, see Port Series No. 13, 1987, Corps of Engineers.

Operations and results during fiscal year. New Work: None. Maintenance: Maintenance dredging was performed (a) by Cottrell Contracting Corporation in the Sampit River and Upper Winyah Bay by pipeline dredge during January – March 2003, removing 991,551 cubic yards of material, at a cost of $2,179,922, and (b) by Great Lakes Dredge and Dock in the Lower Winyah Bay range C shoal by hopper dredge during March 2003, removing 49,319 cubic yards of material, at a cost of $181,099. Adjustments of -$20,500 were made for work performed in FY02 for dredging of Lower Winyah Bay shoal 7 and 8. Costs of $494,512 were incurred for dike maintenance. Costs of $12,630 were incurred for mosquito abatement and trenching. Water control management, natural resource management, condition and operation studies, easement acquisition, planning, engineering and design and supervision and administration costs were $551,030. Federal costs for the project were $3,398,693.

7. LITTLE RIVER INLET, NC AND SC

Location. The project is located near the North Carolina-South Carolina state line. Little River enters the Atlantic Ocean at Little River Inlet at the state line and affords the only connection between the Atlantic Intracoastal Waterway and the ocean along 68 miles of coastline from Shallotte, N. C. to Georgetown, S. C. (See National Ocean Survey Chart No. 11535.)

Existing project. The project provides for an entrance channel twelve feet by 300 feet across the ocean bar; thence a ten by 90-foot inner channel to the Atlantic Intracoastal Waterway. The entrance channel is stabilized by jetties extending seaward 3,284 feet and 3,830 feet long on the east and west sides of the inlet, respectively. The project was completed in FY 84. (See Table 7-B for authorizing legislation.)

Local cooperation. Fully in compliance.

Terminal facilities. There are seven marinas, numerous private docks, and several public boat ramps located in or near Little River.

Operations and results during fiscal year. New Work: None. Maintenance: Condition and operation studies, water control management, and supervision and administration costs were $3,615.

8. MURRELLS INLET, SC

Location. The project is located on the coast of South Carolina, in Georgetown County, about 13 miles southwest of the City of Myrtle Beach. The inlet is the ocean entrance through a barrier beach to several tidal streams in the Murrells Inlet-Garden City estuarine area. (See National Ocean Survey Chart No. 11535.)

Existing project. The project provides for an entrance channel twelve feet by 300 feet across the seaward bar; thence a ten by 90-foot inner channel to a turning basin at the old Army crashboat dock. The entrance channel is stabilized by ocean jetties extending seaward 3,445 feet and 3,319 feet on the north and south sides of the inlet, respectively. The recreational project includes a walkway on the south jetty with access road and parking area. The existing project was completed in 1981. (See Table 7-B for authorizing legislation.)

Local cooperation. Fully in compliance.

Terminal facilities. There are five marinas, numerous private docks, and several public boat ramps located about the Murrells Inlet Harbor.

Operations and results during fiscal year. New Work: None. Maintenance: Maintenance dredging was performed by Southern Dredging in the entrance channel and deposition basin during October - November 2002 by pipeline dredge, removing 145,212 cubic yards of material, at a cost of $718,717. Condition and operations studies, sampling and testing of sediments, water control management costs, planning, engineering and design, and supervision and administration costs were $96,430. Federal costs for the project were $815,147.

9. PORT ROYAL HARBOR, SC

Location. The harbor is located on the coast of South Carolina 57 miles southwest of Charleston Harbor and 23 miles northeast of the mouth of the Savannah River. (See National Ocean Survey Chart No. 11516.)

Existing project. The authorized project provides for a channel from the ocean through Port Royal Sound to Port Royal, South Carolina, 27 feet deep and 500 feet wide across the ocean bar and in Port Royal Sound for approximately 12.8 miles, thence 24 feet deep and 300 feet wide in Beaufort River and Battery Creek for approximately 8.8 miles to and including a turning basin 27 feet deep and 600 feet wide opposite the wharf of the South Carolina State Ports Authority. The existing project was completed in 1959. (See Table 7-B for authorizing legislation.)

Local cooperation. None required.

Terminal facilities. Facilities at Port Royal Harbor include a 565-foot marginal concrete berth, 60,000 square feet of bulk cement storage, 27,000 square feet of transit storage, and 12 acres of backup storage space. Mobile cranes with up to a 90-ton lifting capacity are available. Ground transportation is provided by Port Royal Railroad, which connects to CSX Transportation. The Port is accessible via US Highways 71 & 21 and Interstate 95.

Operations and results during fiscal year. New Work: None. Maintenance: Maintenance dredging was performed by Great Lakes Dredge and Dock in the entrance channel by hopper dredge during March – April 2003, removing 140,625 cubic yards of material, at a cost of $370,000. Condition and operation studies, water control management, natural resource management, planning, engineering and design, and supervision and administration costs were $137,650. Federal costs for the project were $507,650.

10. TOWN CREEK, SC

Location. Town Creek Channel begins at the AIWW directly south of the Town of McClellanville in Charleston County, SC. The channel follows Five Fathom Creek in a southerly direction to the Atlantic Ocean. (See National Ocean Survey Chart No. 11531.)

Existing project. The project provides a channel ten feet deep by 80 feet wide from the AIWW to the mouth of Five Fathom Creek, a distance of 6.2 miles. The project includes an entrance channel twelve feet deep by 100 feet wide across the ocean bar, a distance of 4.0 miles. The existing project was completed in 1975. In 1989, Hurricane Hugo breached Sandy Point and created a new inlet to the ocean. This inlet continued to increase in size and was being used by local traffic to get to the Atlantic Ocean. In 1997, the district requested authority to maintain this new inlet in lieu of the existing authorized channel. Our request to abandon the existing Town Creek channel alignment and establish the Clark's Creek channel alignment was approved by headquarters. The proposed channel relocation, due to natural occurrences, is within the scope of the project authorization. The authorized project dimensions of 12 feet deep by 100 feet wide shall be maintained as appropriate. (See Table 7-B for authorizing legislation.)

Local cooperation. Requirements fully satisfied.

Operations and results during fiscal year. New Work: None. Maintenance: Maintenance dredging was performed by the government-owned sidecaster dredge *Fry* during June – July 2003, removing 86,430 cubic yards of material, at a cost of $370,000. Condition and operations studies, water control management, natural resource management, planning, engineering and design and supervision and administration costs were $24,105. Federal costs for the project were $394,105.

11. RECONNAISSANCE AND CONDITION SURVEYS

Costs of $68,738 were incurred.

12. OTHER AUTHORIZED NAVIGATION PROJECTS

(See Table 7-C.)

13. NAVIGATION WORK UNDER SPECIAL AUTHORIZATION

Navigation Activities Pursuant to Section 107, Public Law 86-645, as amended (Preauthorization).

Fiscal year costs were Coordination Account, $880.

Snagging and Clearing for Navigation (Section 3, Public Law 79-14.)

No cost incurred in FY03.

14. CALABASH CREEK, BRUNSWICK COUNTY, SC

Location. Calabash Creek originates in the southeastern part of Brunswick County, NC, and flows generally southwestward, parallel to the ocean coastline, until it enters the Little River in Horry County, SC. The creek is flanked by the Town of Calabash, NC on the north at the upper limit of the project area. The SC and NC state line crosses Calabash Creek approximately mid-way up the navigation channel. The confluence of Calabash Creek and the Little River is approximately 0.5 miles from the AIWW and about 3.0 miles from the Atlantic Ocean at Little River Inlet.

Existing project. The existing navigation channel did not provide adequate depth for full tidal use by commercial vessels. The project consisted of construction of approximately 2,585 linear feet of low-level dikes at the Goat Island Disposal Site using material at the site. An adjustable water control structure was constructed on the AIWW side of disposal site. A 60' wide navigation channel was dredged in Calabash Creek from the AIWW upstream for a distance of approximately 1.5 miles. Approximately 1.0 miles of the channel was dredged to a depth of 7 ft deep with the reminder dredged to a depth of 8 ft deep. Dredged material was placed in the Goat Island Disposal Site. Initial dredging work was completed in October 2000; however, additional follow-on work was required to remove a bump in the channel in during August – September 2002, (See Table 7-B for authorizing legislation).

Local cooperation. The Project Cooperation Agreement was executed on December 8, 1999 with the Town of Calabash, NC.

Operations and results during fiscal year. An adjustment to the Federal cost was made as a result of a cost transfer from the non-Federal sponsor to balance the project cost sharing requirements. Federal costs for the project were -$15,559.

Shore Protection

15. FOLLY BEACH, SC

Location. The municipality of Folly Beach, SC is located along the Atlantic shoreline of Folly Island, approximately 12 miles south of the City of Charleston, SC. Folly Island is the second island south of the Charleston Harbor entrance channel. (See National Ocean Survey Chart No. 11521).

Existing project. Approximately 2.7 million cubic yards of sand were placed on the beach over a total project reach of 28,200 feet. Rehabilitation of nine groins was completed in May 1993. Periodic nourishment will be required approximately every eight years. For further details see page 7-7 of the Annual Report for 1996. . (See Table 7-B for authorizing legislation.)

Local cooperation. Requirements are described in full on page 7-8 of the FY 1994 Annual Report.

Operations and results during fiscal year. Investigations were initiated to identify a new sand source for the next beach nourishment. Total engineering and design costs were $75,404. Federal costs for the project were $75,160.

16. MYRTLE BEACH, SC

Location. Myrtle Beach is located along the northern coast of SC. The area is commonly referred to as the Grand Strand. The Grand Strand extends from Little River Inlet at the NC border, in a southerly direction, to Murrells Inlet, SC for a total distance of approximately 37 miles. This project includes the developed area along the coast of Horry County, SC and a portion of the coastal area of Georgetown County, SC. Major municipalities in the

project area include the cities of Myrtle Beach and North Myrtle Beach, Garden City, and the Town of Surfside Beach.

Existing project. The plan of improvement placed about 6.3 million cubic yards of sand over a total project reach of 25.4 miles of beach encompassing three separable reaches. The material came from offshore borrow sites. Periodic nourishment will be required once every 8 to 10 years throughout the project life of 50 years. Estimated cost (October 1995 price levels) of initial construction is $35,188,000 Federal and $18,947,000 non-Federal for a total of $54,135,000. Estimated cost of periodic nourishment is $105,347,000 Federal and $56,725,000 non-Federal for a total project cost of $216,207,000. Sand placement on the North Myrtle Beach reach was completed in May 1997 placing 2.5 million cubic yards of sand. Sand placement on the Myrtle Beach reach was completed in January 1998 placing 2.3 million cubic yards of sand. Sand placement on the Garden City/Surfside reach was completed in November 1998 placing 1.5 million cubic yards of sand. (See Table 7-B for authorizing legislation.)

Local cooperation. Requirements are described in full on page 7-8 of the FY 1995 Annual Report.

Operations and results during fiscal year. A sand fencing/dune vegetation contract was awarded to Professional Grading, Clearing, and Excavation on September 6, 2002 for the Garden City/Surfside area and the work was performed in FY03. Total costs were $521,389. Federal costs for the project were $325,733.

17. HUNTING ISLAND WATER LINE, SC

Location. Hunting Island is located approximately 16 miles east of Beaufort, South Carolina. The island is owned and operated as a State Park by the South Carolina Department of Parks, Recreation, and Tourism.

Existing project. The project addressed storm damages to Cabin Road and associated utilities located at Hunting Island State Park through placement of 230,181 cubic yards of beach quality sand over a project length of 2,484 linear feet of beach fronting Cabin Road. (See Table 7-B for authorizing legislation.)

Local cooperation. The Section 103 Project Cooperation Agreement was executed on 26 August 2002 with the South Carolina Department of Parks, Recreation, and Tourism.

Operations and results during fiscal year. The construction contract was awarded to Marinex Construction on November 15, 2002. Construction began on January 15, 2003 and was completed on March 6, 2003. Marinex placed 230,181 cubic yards of beach quality sand, over a project length of 2,484 feet, at a cost of $2,479,458. Cost excludes $800 credit the sponsor received for LERRD's. Federal costs for the project were $1,612,168.

18. OTHER AUTHORIZED SHORE PROTECTION PROJECTS

(See Table 7-D.)

19. SHORE PROTECTION WORK UNDER SPECIAL AUTHORIZATION

Shore Protection Activities Pursuant to Section 103, Public Law 87-874 (Preauthorization).

Fiscal year costs were Morris Island Lighthouse, SC, $21,911.

Flood Control

20. INSPECTION OF COMPLETED WORKS

Flood Control Act of June 22, 1936, and subsequent acts require local interests to maintain and operate local protection projects after completion in accordance with regulations prescribed by Secretary of the Army. Inspections were made to determine extent of compliance and responsible local officials were advised of inadequacies in maintenance and operation on local flood protection works when appropriate. Cost for the period was $28,402. For project inspection data see Table 7-K.

21. OTHER AUTHORIZED FLOOD CONTROL PROJECTS

(See Table 7-E.)

22. FLOOD CONTROL WORK UNDER SPECIAL AUTHORIZATION

Flood Control Activities Pursuant to Section 205, Public Law 80-858, as amended (Preauthorization).

(See Table 7-J.)

Emergency Bank Protection

23.STREAMBANK EROSION UNDER SPECIAL AUTHORIZATION

Emergency Streambank and Shoreline Protection Activities Pursuant to Section 14, Public Law 79-526 as amended (Preauthorization).

Fiscal year costs were Chambers Waterfront, Beaufort, SC, $1,503; Morris Island Lighthouse, SC, $28,537; and Coordination Account, $3,246. (See Table 7-H for Other Authorized Streambank Erosion Control Projects.)

Snagging and Clearing of Navigable Streams and Tributaries in Interest of Flood Control, Section 208, Public Law 83-780.

No cost incurred in FY 03.

Environmental Infrastructure

24. LAKES MARION & MOULTRIE, SC

Location. The Lakes Marion and Moultrie, SC project is located in the east central part of the state and the two lakes make up the Santee Cooper Lake system. Calhoun, Clarendon, Colleton, Dorchester, Orangeburg, and Sumter Counties are located around Lakes Marion and Moultrie.

Existing project. Six counties and fourteen municipalities have joined together to form the Lake Marion Regional Water Agency. Using Lake Marion as a source, the system will provide potable water to satisfy the immediate and future water supply needs for a large portion of five counties and six municipalities located in central South Carolina in the proximity of Lake Marion. The proposed project includes construction of an 8 MGD (million gallon per day) water treatment plant and installation of approximately 62 miles of water transmission pipeline (includes five separable reaches). The five reaches are Santee, Elloree, Holly Hill, St. George, and Manning., The U.S. Army Corps of Engineers currently has authorization to expend $15 million for planning, engineering, design, and construction assistance for the project. (See Table 7-B for authorizing legislation).

Local cooperation. The Design Agreement was executed on May 11, 2001 with the Lake Marion Regional Water Agency. An amendment was executed on January 14, 2002 that allowed the Corps to accept a design provided by the sponsor.

Operations and results during fiscal year. The Corps is performing design review, environmental compliance activities, real estate oversight, scheduling services, and value engineering studies during the design phase. Total costs for the project were $511,148. Federal costs for the project were $367,122.

25. MULTIPLE PURPOSE PROJECTS INCLUDING POWER

(See Table 7-F.)

Miscellaneous

26. ECOSYSTEM RESTORATION AND PROTECTION

Project modifications accomplished under the authority of Section 206, Aquatic Ecosystem Restoration, Water Resources Development Act of 1996 (Preauthorization).

(See Table 7-M.)

Project modifications accomplished under the authority of Section 204, Beneficial Use of Dredged Material, Water Resources Development Act of 1986, as amended.

Fiscal year costs were Coordination Account, $207.

Project modifications accomplished under the authority of Section 1135, Project Modifications For Improvement of the Environment, Water Resources Development Act of 1986, as amended.

Fiscal year costs were Coordination Account, $1,490.

See Table 7-L for Other Authorized Environmental Projects.

27. EMERGENCY RESPONSE ACTIVITIES - FLOOD CONTROL AND COASTAL EMERGENCIES

Operational Program Areas. Federal costs incurred under the Flood Control and Coastal Emergencies Program was $468,413.

Emergency Work in Support of Other Federal Agencies. Costs of $16,994 were incurred to support FEMA.

Costs of $24,272 were incurred for the Catastrophic Disaster Preparedness Program. Costs of $23,729 were incurred for anti-terrorism/force protection.

28. GENERAL REGULATORY ACTIVITIES

During FY 03, $2,849,108 was expended on Permit Evaluation, and $583,318 on Enforcement. Total costs were $3,432,426.

General Investigations

29. ACTIVE INVESTIGATIONS

See Table 7-I which covers: Surveys, Collections, and Study of Basic Data, and Research and Development Activities.

TABLE 7-A COST AND FINANCIAL STATEMENT

See Sect. in Text	Project	Funding	FY 00	FY 01	FY 02	FY 03	Total Cost to Sept. 30, 2003	
1	Aquatic Plant Control, SC	New Work:						
		Approp.	0	250,000	99,000	357,000	11,554,605	
		Cost	77,339	153,511	187,987	253,965	11,440,172	
	(Contributed Funds)	Approp.	0	0	0	0	52,028	
		Cost	0	0	0	0	52,028	
2	Atlantic Intra-coastal Waterway Between Norfolk, Va. and the St. Johns River, FL	New Work:						
		Approp.	0	0	0	0	7,455,378	1
		Cost	0	0	0	0	7,455,378	1
		Maint:						
		Approp.	2,186,288	5,644,295	4,246,000	1,788,221	91,511,512	2
		Cost	2,303,405	5,610,848	4,247,531	1,793,568	91,477,951	2
3	Charleston Harbor, SC	New Work:						
		Approp.	38,117,000	25,434,386	7,004,000	8,313,000	140,538,493	3
		Cost	39,839,960	25,421,886	7,133,969	8,315,502	140,524,655	3
		Maint:						
		Approp.	3,804,820	9,306,336	5,630,000	10,459,221	171,191,015	4
		Cost	3,858,836	9,020,486	5,840,601	10,519,823	171,173,267	4
	(Contributed Funds)	New Work:						
		Approp.	12,700,000	8,836,137	3,858,009	1,174,983	43,547,977	5
		Cost	13,208,413	8,770,722	2,398,804	2,371,374	43,119,043	5
4	Cooper River, Charleston Harbor, SC	New Work:	-143,000	0	0	-25,800	204,188,712	
		Approp.	-90,225	742	51	-22,336	204,188,712	
		Cost						
		Maint:	3,390,689	3,783,043	3,266,542	7,072,828	70,361,630	6
		Approp.	3,345,327	3,812,871	3,243,217	5,033,022	68,272,032	6
		Cost						
5	Folly River, SC	New Work:						
		Approp.	0	0	0	0	337,736	
		Cost	0	0	0	0	337,736	
		Maint:						
		Approp.	487,541	419,828	661,000	979,491	7,889,894	
		Cost	485,904	419,750	659,000	981,569	7,887,631	
6	Georgetown Harbor, SC	New Work:						
		Approp.	0	0	0	0	7,061,755	7
		Cost	0	0	0	0	7,061,755	7
		Maint:						
		Approp.	5,215,583	2,502,835	3,060,000	3,333,723	93,221,699	8
		Cost	5,279,103	2,485,142	3,000,055	3,398,693	93,208,494	8

TABLE 7-A COST AND FINANCIAL STATEMENT

See Sect. in Text	Project	Funding	FY 00	FY 01	FY 02	FY 03	Total Cost to Sept. 30, 2003	
7	Little River Inlet, NC and SC	New Work:						
		Approp.	0	0	0	0	17,037,428	
		Cost	0	0	0	0	17,037,428	
		Maint:						
		Approp.	5,110	2,600	7,000	-1,808	3,017,822	
		Cost	5,077	2,588	124	3,615	3,016,322	
	(Contributed Funds)	New Work:						
		Approp.	0	0	0	0	1,521,920	
		Cost	0	0	0	0	1,521,920	
8	Murrells Inlet, SC	New Work:						
		Approp.	0	0	0	0	15,502,240	
		Cost	0	0	0	0	15,502,240	
		Maint:						
		Approp.	14,500	408,150	2,483,072	787,363	7,822,274	
		Cost	5,857	414,532	2,453,416	815,147	7,817,924	
	(Contributed Funds)	New Work:						
		Approp.	0	0	0	0	1,536,893	9
		Cost	0	0	0	0	1,536,893	9
9	Port Royal Harbor, SC	New Work:						
		Approp.	0	0	0	0	1,786,100	
		Cost	0	0	0	0	1,786,100	
		Maint.						
		Approp.	1,757,168	51,855	93,000	492,514	16,748,620	
		Cost	1,776,332	51,061	78,710	507,650	16,748,065	
10	Town Creek, SC	New Work:						
		Approp.	0	0	0	0	219,521	
		Cost	0	0	0	0	219,521	
		Maint.						
		Approp.	191,045	369,044	356,000	383,477	9,266,807	
	(Contributed Funds)	Cost	191,048	368,975	345,410	394,105	9,266,807	
		New Work:						
		Approp.	0	0	0	0	8,600	
		Cost	0	0	0	0	8,600	

CHARLESTON, SOUTH CAROLINA DISTRICT

TABLE 7-A COST AND FINANCIAL STATEMENT

See Sect. in Text	Project	Funding	FY 00	FY 01	FY 02	FY 03	Total Cost to Sept. 30, 2003	
14	Calabash	New work:						
	Creek, NC	Approp.	473,503	71,000	-1,000	-16,912	582,591	
		Cost	477,939	69,246	2,584	-15,559	582,591	
		New Work:						
	(Contributed	Approp.	78,400	7,000	15,000	12,526	112,926	
	Funds)	Cost	77,812	1	21,883	13,230	112,926	10
15	Folly Beach,	New work:						
	SC (First	Approp.	0	0	98,000	92,000	190,000	
	Nourishment)	Cost	0	0	93,262	75,160	168,422	
		New Work:						
	(Contributed	Approp.	0	0	15,000	20,294	35,294	
	Funds)	Cost	0	0	14,891	244	15,135	
16	Myrtle	New work:						
	Beach, SC	Approp.	0	-260,386	25,000	295,000	33,344,614	11
		Cost	207,158	-163,862	57,244	325,733	33,343,857	11
	(Contributed	New Work:						
	Funds)	Approp.	0	210,000	-7,719	175,000	16,337,281	
		Cost	0	233,547	15,707	195,656	16,325,965	12
17	Hunting	New work:						
	Island Water	Approp.	0	0	0	1,612,896	1,612,896	
	Line, SC	Cost	0	0	0	1,612,168	1,612,168	
		New Work:						
	(Contributed	Approp.	0	0	740,800	130,139	870,939	
	Funds)	Cost	0	0	0	867,290	867,290	13
	Lakes Marion	New Work:						
24	& Moultrie,	Approp.	0	3,352,000	9,786,000	-9,793,600	3,344,400	
	SC	Cost	0	117,328	240,936	367,122	725,387	
		New Work:						
	(Contributed	Approp.	0	62,000	177,400	150,400	389,800	
	Funds)	Cost	0	9,220	75,212	144,026	228,459	

1 Includes $109,490 for new work for previous projects.

2 Includes $69,422 for maintenance of previous projects.

3 Includes $47,395,108 for previous projects and $318,000 for Preconstruction, Engineering and Design on the current project.

4 Includes $401,989 for maintenance of previous projects and $600 for maintenance expended from contributed funds for the existing project.

5 Includes $12,409,848 for the 40 ft project, excludes $2,996,994 credit for LERRD's and $1,966,945 final project reimbursement for the 40 ft project. Includes $179,000 for Preconstruction,
Engineering and Design on the current project.

6 Includes $765,000 appropriated and expended in FY 96 under appropriation 96X5125 Maintenance and Operation of Dams and Other Improvements of Navigable Waters.

7 Includes $2,445,852 for new work for previous projects.

8 Includes $114,556 for maintenance of previous projects.

9 Includes $67,000 accomplished under authority of Section 3, P.L. 79-11 incurred through FY 73.

10 Excludes $33,000 credit for LERRD's.
11 Includes $2,666,000 for Preconstruction, Engineering and Design.
12 Excludes $1,629,993 credit for LERRD's.
13 Excludes $800 credit for LERRD's.

TABLE 7-B AUTHORIZING LEGISLATION

See Sect. in Text	Date of Authorizing Act	Project and Work Authorized	Documents
		AQUATIC PLANT CONTROL, SC	
1.	Oct. 27, 1965	Provides for control and progressive eradication of water hyacinth, alligatorweed, Eurasian water-milfoil and other obnoxious aquatic plant growths from navigable waters, tributary streams, connecting channels, and other allied waters of the U.S., in combined interest of navigation, flood control, drainage, agriculture, fish and wildlife conservation, public health and related purposes, including continued research for development of most effective and economic control measures in cooperation with other Federal and state agencies.	H.D. 251, 89th Cong., 1st Sess. P.L. 89-298
		ATLANTIC INTRACOASTAL WATERWAY BETWEEN NORFOLK, VA, AND ST. JOHNS RIVER, FL	
2.	Sep. 19, 1890	Channel from Minim Creek to Winyah Bay.	Annual Report, 1889, p. 1184.
	Jun. 13, 1902	Channel from Charleston to a point opposite McClellanville.	H.D. 84, 56th Cong., 1st sess. and Annual Report 1900, p.1908
	Mar. 2, 1907	Branch channel to McClellanville.	Annual Report 1903, p. 1133
	Mar. 2, 1907	Extending the channel to Minim Creek, thence through the Esterville-Minim Canal to Winyah Bay.	H.D. 178, 63rd Cong., 1st. sess.
	Mar. 3, 1925	Cut across the Santee Delta at Four Mile Creek.	H.D. 237, 68th Cong., 1st sess.
	Mar. 3, 1925	Widening and deepening the waterway from Charleston to Beaufort.	S.D. 178, 68th Cong., 2nd sess.
	Jul. 3, 1930	A waterway eight feet deep and 75 feet wide from Cape Fear River to Winyah Bay.	H.D. 41, 71st Cong., 1st sess.
	Aug. 30, 1935 [1]	Construction of bridges across the waterway in Horry County, SC.	Rivers and Harbors Committee Doc. 14, 72nd Cong., 1st sess.
	Aug. 30, 1935 [2]	Cutoff between Ashepoo and Coosaw Rivers.	H.D. 129, 72nd Cong., 1st sess.
	Aug. 30, 1935 [2]	Enlarging the channel from Winyah Bay to Charleston including the branch channel to McClellanville, to depth of ten feet and bottom width of 90 feet.	Rivers and Harbors Committee Doc. 11, 72nd Cong., 1st sess.
	Aug. 26, 1937	Increasing dimensions of waterway to twelve feet deep and 90 feet wide.	Rivers and Harbors Committee, Doc 6, 75th Cong., 1st sess.[3]
	Mar. 2, 1945	Anchorage Basin 125 feet wide, 335 feet long, twelve feet deep, near Myrtle Beach, SC. (Deauthorized by 1986 WRDA) [4]	H.D. 327, 76th Cong., 1st sess.

TABLE 7-B AUTHORIZING LEGISLATION

See Sect. in Text	Date of Authorizing Act	Project and Work Authorized	Documents
		CHARLESTON HARBOR, SC	
3.	Jun. 18, 1878	2 jetties. [5]	Annual Report 1878, pp. 553-572.
	Aug. 8, 1917	Increase in depth to 30 feet with width of 500 feet between the jetties and 1,000 feet seaward thereof.	H.D. 288, 62nd Cong., 2nd sess. H.D. 1946, 64th Cong., 2nd sess,
	Jul. 18, 1918	The 40-foot channel to the Naval Base. Act provided that the 40-foot channel should not be undertaken "until the proposed new drydocks at this navy yard, carrying a depth of 40 feet of water over the blocks, has been authorized." This dock was authorized in the Naval Appropriations Act approved July 1, 1918 (40 Stat. L. 725).	pt.1, pp. 21-29, 57, 58, and 64-68.
	Jan. 21, 1927	A 30-foot channel from the sea to Goose Creek via Cooper River, together with a 30-foot channel through Town Creek for commercial purposes. The act also provided that the 40-foot channel be prosecuted only as found necessary for national defense.	H.D. 249, 69th Cong. 1st sess.
	Oct. 17, 1940	The 35-foot channel depth from the sea to the head of the project via Cooper River and Town Creek, also a channel in Shem Creek to Mount Pleasant, 110 feet wide and ten feet deep, including a turning basin at the upper end.	H.D. 259, 76th Cong., 1st sess.
	Mar. 2, 1945	An anchorage area 30 feet deep in the water area between Castle Pinckney and Fort Moultrie. [6] (Deauthorized by 1986 WRDA)	H.D. 156, 77th Cong., 1st sess.
	Sep. 3, 1954	Deepen the 30-foot channel north and east of Drum Island to 35 feet.	S.D. 136, 83rd Cong., 2nd sess.[3]
	Jul. 14, 1960 as amended	Shem Creek Channel modified by extending 1,150 feet upstream and downstream from mouth to Atlantic Intracoastal Waterway.	H.D. 35, 86th Cong., 1st sess.
	Oct. 22, 1976	Project authorized for the Phase I design memorandum stage of Advanced Engineering and Design.	H.D. 94-436, 94th Cong., 2nd sess.
	Nov. 17, 1986	Deepening 35 foot channel to 40 feet (42 feet in the ocean bar and entrance channel) from the 42 foot ocean contour to Goose Creek, a distance of 27.1 miles, construction of one turning basin, modification of existing turning basins, deepening and modification of the anchorage basin, deepening Shipyard River to 38 feet, maintain the Wando River Channel to 35 feet at Federal expense and the deepening of this channel to 40 feet if economically justified.	99th Cong. 2nd sess., P.L. 96-662

TABLE 7-B AUTHORIZING LEGISLATION

See Sect. in Text	Date of Authorizing Act	Project and Work Authorized	Documents
	Oct 12, 1996	Deepening of the entrance channel from 42 ft. deep to 47 ft. deep and the inner channels from 40 ft. deep to 45 ft. deep. Other improvements include realignment/widening of various channels/reaches, construction of a new turning basin opposite the future Daniel Island terminal, construction of a new contraction dike, reconstruction of two existing dikes and removal of a third existing dike.	104 th Cong. P.L. 104-303
.			
		COOPER RIVER, CHARLESTON HARBOR, SC (ST. STEPHEN PROJECT)	
4.	Aug. 13, 1968	Redivert most of the Santee River waters Pinopolis Dam into the lower Santee River through a canal beginning at Lake Moultrie and extending to the Santee River in the vicinity of St. Stephen, South Carolina	S.D. 88, 90th Cong.,P.L. 90-483
		FOLLY RIVER, SC	
5.	Jul. 14, 1960 as amended	Consists of stable all-tide channel nine feet deep and 80 feet wide in Folly River and Folly Creek and an entrance channel at Stono Inlet 100 feet wide and eleven feet deep.	Sec. 107, P.L. 86-645. Authorized by Chief of Engineers, Dec. 23, 1977.
		GEORGETOWN HARBOR, SC	
6.	Aug. 5, 1886	Jetties and earthen dike to protect south jetty.	H. Ex. Doc. 258 48th Cong., 2nd sess., and Annual Report 1885, pp. 1154-1170, and H. Ex. Doc. 117, 50th Cong., 2nd sess., and Annual Report 1889, pp. 1110-1111.
	Jun. 25, 1910	Previous project channel dimensions and training wall.	H.D. 398, 58th Cong., 2nd sess. and Annual Report 1904, pp. 1591-1605.
	Mar. 2, 1945	27-foot channel from ocean, including a turning basin in Sampit River.	H.D. 211, 76th Cong., 1st sess.
	Jun. 30, 1948	Cutoff and side channel in Sampit River.	H.D. 21, 81st Cong., 1st sess.

CHARLESTON, SOUTH CAROLINA DISTRICT

TABLE 7-B AUTHORIZING LEGISLATION

See Sect. in Text	Date of Authorizing Act	Project and Work Authorized	Documents
		LITTLE RIVER INLET, NC AND SC	
7.	Oct. 27, 1965	Provides for an entrance channel twelve feet by 300 feet across the ocean bar; thence ten feet by 90-foot inner channel to the Atlantic Intracoastal Waterway.	H.D. 362, 92nd Cong. Section 201, P.L. 89-298 River and Harbor and Flood Control Act of 1965
	Mar. 7, 1974	Authorized emergency dredging operations as the Chief of Engineers determines necessary to maintain channel depths sufficient to permit free and safe movement of vessels until such time as the authorized project is constructed.	H.D. 10203, 93rd Cong. Section 67, P.L. 93-251 Water Resources Development Act of 1974
		MURRELLS INLET, SC	
8.	Oct. 27, 1965	Provides for an entrance channel twelve feet by 300 feet across the seaward bar, thence ten by 90-foot inner channel to a turning basin at the old Army crash boat dock.	H.D. 137, 92nd Cong. Section 201, P.L. 89-298 River and Harbor and Flood Control Act of 1965
	Mar. 7, 1974	Authorized emergency dredging operations as the Chief of Engineers determines necessary to maintain channel depths sufficient to permit free and safe movement of vessels until such time as the authorized project is constructed.	H.D. 10203, 93rd Congr. Section 67, P.L. 93-251 Water Resources Development Act of 1974
		PORT ROYAL HARBOR, SC	
9.	Sep. 3, 1954	A channel from the ocean through Port Royal Sound to Port Royal, SC.; 27 feet deep and 500 feet wide across the ocean bar and in Port Royal Sound for approximately 12.8 miles thence 24 feet deep and 300 feet wide in Beaufort River and Battery Creek for approximately 8.8 miles to and including a turning basin 27 feet deep and 600 feet wide opposite wharf of the SC State Ports Authority.	H.D. 469, 81st Cong., 2nd sess.

TABLE 7-B AUTHORIZING LEGISLATION

See Sect. in Text	Date of Authorizing Act	Project and Work Authorized	Documents
		TOWN CREEK, SC	
10.	Jul 14, 1960 as amended	An entrance channel twelve feet deep by 100 feet wide across the ocean bar a distance of 4.0 miles and a channel ten feet deep by 80 feet wide from the mouth of Five Fathom Creek to the Atlantic Intracoastal Waterway, a distance of 6.2 miles.	Sec. 107, P.L. 86-645. Authorized by Chief of Engineers, Feb. 12, 1974.
		CALABASH CREEK, BRUNSWICK CTY, NC	
14.	Jul. 14, 1960 as amended	Deepen navigation channel.	Sec. 107, P.L. 86-645 Authorized by Chief of Engineers.
		FOLLY BEACH, SC	
15.	Nov. 17, 1986	Shoreline protection.	P.L. 99-662 99th Cong., 2nd sess.
	Aug. 17, 1991	Construct hurricane and storm protection measures.	P.L. 102-104, 102nd Cong.
		MYRTLE BEACH, SC	
16.	Nov. 28, 1990	Storm damage reduction for periodic nourishment over The 50-year life of the project.	P.L. 101-640
		HUNTING ISLAND WATER LINE, SC	
17.	Oct. 23, 1962	Shoreline protection.	Sec. 103, P.L. 87-874 Authorized by Chief of Engineers, Aug. 6, 2002.
		LAKES MARION & MOULTRIE, SC	
24.	Aug. 17, 1999	Provide technical, planning and design, and construction assistance for $5M for water supply treatment and distribution projects in the counties of Calhoun, Clarendon, Colleton, Dorchester, Orangeburg, and Sumter, SC.	Sec. 502(f)(25), P.L. 106-53 Water Resources Development Act of 1999
	Dec. 21, 2000	Increased authority from $5M to $15M	Sec. 108(c)(4), P.L. 106-554
	Dec. 1, 2003	Increased authority from $15M to $35M and added wastewater treatment component.	Sec. 126, P.L. 108-137

1/ Included in Public Works Administration Program September 6, 1933.
2/ Included in Emergency Relief Administration Program May 28, 1935.
3/ Contains latest published maps.
4/ Inactive.
5/ Completed under previous projects.
6/ For national defense.

TABLE 7-C OTHER AUTHORIZED NAVIGATION PROJECTS

(See Section 12 of Text)

Project	Status	For Last Full Report See Annual Report For	Construction	Cost to Sep. 30, 2003 Operation & Maintenance
Adams Creek, SC	Completed	1978	$125,697	$29,143
Aquatic Plant Control, NC and SC 1/	Completed	1968	379,680	--
Archers Creek, SC	Completed	1914	20,646	--
Ashley River, SC	Completed	1955	260,996	589,436
Brookgreen Gardens, SC	Completed	1992	94,700 2/	4,011
Charleston Hbr Rediversion (Fishlift), SC	Completed	2001	0	6,705,010
Edisto River, SC	Completed	1938	33,103	2,887
Great Pee Dee River, SC	Completed	1950	183,712	271,098
Jeremy Creek, SC	Completed	1996	49,987	116,175
Lynches River and Clark Creek, SC	Completed	1982	9,500	85,595
Mingo Creek, SC	Completed	1950	29,050	8,575
Salkahatchie River, SC	Completed	1896	15,841	1,936
Santee River, NC & SC	Completed	1950	99,750	182,469
Village Creek, SC	Completed	1985	26,500	111,314
Waccamaw River, NC and SC	Completed	1978	262,814	284,347
Wateree River, SC	Completed	1940	60,000	154,559

1 Pilot Program

2 Excludes $7,800 contributed funds.

TABLE 7-D OTHER AUTHORIZED SHORE PROTECTION PROJECTS

(See Section 18 of the Text)

Project	Status	For Last Full Report See Annual Report For	Construction	Cost to Sep. 30, 2003 Operation & Maintenance
Folly Beach, SC	Completed	1996	$11,719,001 1/	--
Hunting Island Beach, SC	Completed	1984	$ 4,122,053	--

Construction costs include both federal and non-federal.

1/ Excludes $819,693 credit for LERRD's and includes $1,586,000 for Preconstruction, Engineering and Design.

TABLE 7-E OTHER AUTHORIZED FLOOD CONTROL PROJECTS

(See Section 21 of Text)

Project	Status	For Last Full Report See Annual Report for	Construction	Cost to Sep. 30, 2003 Operation & Maintenance
Buck Creek, NC & SC	Completed	1970	$298,167	--
Cow Castle Creek, SC	Completed	1985	250,000	--
Cowpen Swamp, SC	Completed	1960	18,679	--
Crabtree Swamp, SC	Completed	1969	97,000	--
Eagle Creek, SC	Completed	1986	1,245,063	--
Edisto River, SC	Discontinued	1947	6,379	--
Edisto River, North Fork, SC	Completed	1969	127,660	--
Edisto River, Vicinity Canadays Landing, SC	Completed	1958	3,160	--
Gapway Swamp, SC 1	Completed	1969	339,197	--
Kingstree Branch, Williamsburg County, SC	Completed	1978	247,242	--
Leith Creek, NC 2	Completed	1982	430,951	--
Little Sugar Creek, NC 1	Completed	1969	86,600	--
Old Field Swamp, NC 1	Completed	1979	763,022	--
Reddies River Lake, NC 1	Completed	1980	985,800	--
Reedy River, SC	Discontinued	1974	4,500	--
Roaring River, Wilkes County, NC 1	Phase I Only	1978	370,000	--
Saluda River, SC	Completed	1963	99,000	--
Sawmill Branch, SC	Completed	1971	248,605	--
Scotts Creek, SC	Completed	1988	545,000	--
Shot Pouch Creek, Sumter Co., SC	Completed	1971	77,400	--
Simmons Bay Creek, NC 1	Completed	1963	186,435	--
Simpson Creek, SC	Completed	1957	81,000	--
Socastee Creek, SC	Completed	1996	1,110,156	--
Todd Swamp, SC	Completed	1964	29,000	--
Turkey Creek, Sumter County, SC	Completed	1974	319,669	--
Turkey Creek, Sumter County, SC 2 3	Completed	2001	576,765	--
Waccamaw R. & Seven Creeks, NC & SC 1	Completed	1961	67,821	
Wilson Branch, Chesterfield County, SC	Completed	1985	277,111	

1 Transferred to Wilmington District

2 Construction costs include both federal and non-federal.

3 Includes $5,596 credit for LERRD's.

TABLE 7-F MULTIPLE PURPOSE PROJECTS INCLUDING POWER

(See Section 25 of the Text)

Project	Status	For Last Full Report See Annual Report for	Construction	Cost to Sep. 30, 2003 Operation & Maintenance
Cooper River Seismic Modification, SC	Completed	1992	$29,400,000 1/	--

1 Excludes $770,000 for credits to Santee Cooper.

TABLE 7-G DEAUTHORIZED PROJECTS

Project	For Last Full Report See Annual Report for	Date and Authority	Federal Funds Expended	Contributed Funds Expended
Abbapoola Creek, SC	--	5 Aug 77 Section 12, P.L. 93-251	--	--
Beresford Creek, SC	--	5 Aug 77 Section 12, P.L. 93-251	--	--
Charleston Hbr (Anchorage Basin), SC	1954	17 Nov 86 Section 1002, P.L. 99-662	$1,330,000	--
Congaree River, SC	--	5 Aug 77 Section 12, P.L. 93-251	--	--
Little Pee Dee River, SC	--	5 Aug 77 Section 12, P.L. 93-251	--	--
Lumber River, SC & NC	--	5 Aug 77 Section 12, P.L. 93-251	--	--
Myrtle Beach (Anchorage Basin), SC	1954	17 Nov 86 Section 1002, P.L. 99-662	--	--
Reedy River, Greenville, SC	1971	17 Nov 86 Section 1002, P.L. 99-662	$ 4,500	--
Russell Creek, SC	--	5 Aug 77 Section 12, P.L. 93-251	--	--
Yadkin River, SC	--	5 Aug 77 Section 12, P.L. 93-251	--	--

OTHER AUTHORIZED

TABLE 7-H STREAMBANK EROSION CONTROL PROJECTS

(See Section 23 of the Text)

Project	Status	For Last Full Report See Annual Report for	Construction	Cost to Sep. 30, 2003 Operation & Maintenance
Battery Pringle, SC	Completed	1996	$152,579	--
Castle Pinckney, SC	Completed	2000	$381,681	--
Cooper River, Pompion Hill Chapel, SC	Completed	1987	$185,000	--
Drayton Hall, SC	Completed	1994	$250,374	--
Hunting Island Waste Treatment Plant, SC	Completed	2000	$ 69,160	--
Indian Bluff, SC	Completed	1998	$164,155	--
Pinopolis Dam, SC	Completed	1996	$574,787	--
Santee Dam, SC	Completed	1996	$558,117	--
SC DOT Bridges, SC	Completed	1998	$217,890	--
Shore Drive, Singleton Swash, SC	Completed	2001	$261,077 1/	--

Construction costs include both federal and non-federal.

1/ Includes $6,785 for work-in-kind credit and $36,028 for betterments.

TABLE 7-I ACTIVE GENERAL INVESTIGATIONS

(See Section 29 of Text)

ITEM		FISCAL YEAR COSTS
FLOOD DAMAGE PREVENTION (CATEGORY 120)		
Waccamaw River		$6,298
SHORELINE PROTECTION (CATEGORY 130)		
Pawleys Island		$90,977
SPECIAL STUDIES (CATEGORY 140)		
Reedy River		$54,826
Santee Delta Environmental Restoration		$21,725
COMPREHENSIVE STUDIES (CATEGORY 150)		
Broad River		$35,948
REVIEW OF AUTHORIZED PROJECT (CATEGORY 160)		
AIWW		$484,196
Charleston Harbor		$ 79
MISCELLANEOUS ACTIVITIES (CATEGORY 170)		
Special Investigations		$18,354
Interagency Water Resources Development		$ 8,169
COORDINATION STUDIES WITH OTHER AGENCIES (CATEGORY 180)		
Cooperation With Other Water Resource Agencies		$ 3,923
Planning Assistance to States (Coordination)		$30,241
Planning Assistance to States (Cost-shared Studies)		$ 279,051
	TOTAL (CATEGORY 100)	**$ 1,033,787**
FLOOD PLAIN MGMT SERVICES (CATEGORY 250)		
Flood Plain Management Services		$34,748
National Floodproofing Committee		$12,998
RAS-HEC, SC		$11
SC HES Restudy		$ 960
Southeast US Regional Study		$2,532
SS – Mullins Drainage Study		$14,961
SS - SC Waves		$13,097
SS - Riverine Model		$113
Texas Hurricane Evacuation Study		$ 541
Technical Services		$55,408
HYDROLOGIC STUDIES (CATEGORY 260)		
Hydrologic Studies		$ 920
	TOTAL (CATEGORY 200)	**$136,287**
PRECONSTRUCTION ENGINEERING & DESIGN (CATEGORY 400)		
Pawleys Island		$8,286
	TOTAL (CATEGORY 400)	**$8,286**
	TOTAL GENERAL INVESTIGATIONS	**$ 1,178,360**

TABLE 7-J FLOOD CONTROL WORK UNDER SPECIAL AUTHORIZATION

Preauthorization Studies
(See Section 22 of Text)

Study Identification	Section	Fiscal Year Costs
Brushy Creek, Greenville, SC	205	$72,515
Coordination Account	205	3,452
Congaree River Floodway, SC	205	32,468
Crooked Creek, Bennettsville, SC	205	111

TABLE 7-K INSPECTION OF COMPLETED WORKS

(See Section 20 of Text)

Project	Date of Inspection
Battery Pringle, SC	July 18, 2003
Cape Marsh, SC	August 25, 2003
Castle Pinckney, SC	August 15, 2002
Cow Castle Creek, SC	August 14, 2003
Drayton Hall, SC	July 17, 2003
Eagle Creek, SC	July 22, 2003
Hunting Island, SC	September 18, 2003
Indian Bluff, SC	August 19, 2003
Kingstree Branch, SC	August 12, 2003
Murphy Island, SC	August 25, 2003
Pinopolis Dam, SC	July 16, 2003
Pompion Hill, SC	August 18, 2003
Santee Dam, SC	July 16, 2003
Sawmill Branch, SC	July 22, 2003
Shore Drive, Singleton Swash, SC	September 9, 2003
Scotts Creek, SC	August 14, 2003
SC DOT Bridges, SC	September 3, 2003
Socastee Creek, SC	September 10, 2003
Turkey Creek, SC	August 19, 2003
Wilson Branch, SC	August 12, 2003

TABLE 7-L OTHER AUTHORIZED ENVIRONMENTAL PROJECTS

(See Section 26 of the Text)

Project	Status	For Last Full Report See Annual Report for	Construction	Cost to Sep. 30, 2003 Operation & Maintenance
Cape Marsh Management Area, Santee Coastal Reserve, Charleston County, SC	Completed	2001	$333,914 1/	--
Miller Corner Phragmites Control, SC	Completed	2001	$236,923 2/	--
Murphy Island, SC	Completed	1998	$375,631 3/	--

Construction costs include both federal and non-federal.

1 Includes $43,000 credit for work-in-kind installation of the water control structures.

2 Includes $47,600 credit for work-in-kind structural modifications.

3 Includes $100,277 for work-in-kind credit.

TABLE 7-M AQUATIC ECOSYSTEM RESTORATION

Preauthorization Studies
(See Section 26 of Text)

Study Identification	Section	Fiscal Year Costs
Bonneau Ferry, SC	206	$1,221
Cedar Hill Plantation, SC	206	22
Chapel Branch, SC	206	54,526
Cousar Branch, SC	206	54
Coordination Account	206	8,121
Grace Memorial Bridge, SC	206	14,778
Hunting Island, SC	206	258,906
Filbin Creek, SC	206	9,701
Ireland Creek, SC	206	105,105
Jeffries Creek, SC	206	33,805
Lake Connestee, SC	206	48,648
Lynches River, Lake City, SC	206	21,466
Mulberry Plantation, SC	206	86,591
Pocotaligo River and Swamp, SC	206	15,691
Preliminary Restoration Plan	206	404
Quimby Plantation, SC	206	49,652
Reedy River, SC	206	32,065
Silas Pearman Bridge, SC	206	17,693
Ware Shoals,/Saluda River, SC	206	210
Wilson Branch, SC	206	1,734
	206	

SAVANNAH, GA, DISTRICT

The District comprises drainage basins that flow into the Atlantic Ocean between Port Royal Sound, SC, and Cumberland Sound, GA and FL, and includes the Atlantic Intracoastal Waterway between these points. This area covers the headwaters of the Savannah River in southwestern North Carolina, eastern Georgia, and a small portion of northeastern Florida.

IMPROVEMENTS

Navigation

Beach Erosion Control

Flood Control

Environmental Restoration

Multiple-Purpose Power Projects Including Major Rehabilitation

General Investigations

Miscellaneous

Tables

Navigation

1. ATLANTIC INTRACOASTAL WATERWAY BETWEEN NORFOLK, VA, AND ST. JOHNS RIVER, FL (SAVANNAH DISTRICT)

Location. This 161-mile section of waterway connects Port Royal Sound, SC, with Cumberland Sound, GA and FL. (See NOAA charts 11489-11507, formerly Coast and Geodetic Survey Charts 838-841, inclusive.)

Previous Projects. (Between Savannah, GA, and Fernandina, FL) For details see pages 1814, 1821-1823 of Annual Report for 1915 and page 585 of Annual Report for 1938.

Existing Project. The project provides for a waterway 12 feet deep at mean low water and not less than 90 feet wide between Port Royal Sound, SC, and Savannah, GA; 12 feet deep at mean low water, with widths of 90 feet in land cuts and narrow streams and 150 feet in open waters between Savannah, GA, and Cumberland Sound, GA and FL; and a suitable anchorage basin at Isle of Hope, GA. Mean tidal range between Port Royal, SC, and Cumberland Sound, GA and FL is from 6 to 8 feet with fluctuations from 1.5 to 2.5 feet due to winds and lunar phases. (See Table 8-B for Authorizing Legislation.)

Local Cooperation. Fully complied with.

Terminal Facilities. Exclusive or adequate terminal facilities at port of entry. This improvement serves numerous wharves, some of which are open to the public on equal terms. Facilities are considered ample for existing commerce.

Operations and Results During Fiscal Year.
Maintenance: The District used Cottrell Engineering Corporation dredge "Marion" to dredge the waterway during the first and second quarters of FY 02. The dredge removed 781,044 cubic yards of material at a cost of $1,123,759.

Operation and Maintenance costs for the FY amounted to $324,935.27, which included such items project condition surveying and real estate monitoring. (See Table 8-A for Cost and Financial Statement.)

Condition at End of Fiscal Year. The main channel of the existing project, completed in 1941, is maintained at 12 feet. The former main channel, now an alternate route through the westerly end of the south channel and northerly end of Wilmington River, will be maintained to a depth of 7 feet mean low water for traffic points north and south of Savannah Harbor. Relocation of the main channel from the Frederica to Mackay Rivers near St. Simons Island, GA, was accomplished under Section 107 of the Continuing Authorities Program after construction of a new bridge for the Torras Causeway. The notice on the final Environmental Impact Statement appeared in the Federal Register October 29, 1976.

2. BRUNSWICK HARBOR, GA

Location. The harbor entrance is 70 statute miles south of the entrance to Savannah Harbor, GA, and 25 statute miles north of the entrance to Fernandina Harbor, FL. (See NOAA Chart 11215, formerly Coast and Geodetic Survey Chart 447.)

Previous Project. For details see page 1818 of Annual Report for 1915 and page 591 of Annual Report for 1938.

Existing Project. The project provides for a stone jetty 4,350 feet long at the entrance to East River and the following channels: 32 feet deep and 500 feet wide across the bar; 30 feet deep and 400 feet wide through St. Simons Sound, Brunswick River, and East River to the foot of Second Avenue; 30 feet deep and 300 feet wide in Turtle River to the Allied Chemical Company wharf, formerly the Atlantic Refining Company; 30 feet deep and 400 feet wide in South Brunswick River; 27 feet deep and 350 feet wide in East River from Second Avenue to its confluence with Academy Creek; and a channel in Back River 20 feet deep and 150 feet wide from St. Simons Sound to the mouth of Mill Creek; and a channel in Terry Creek 10 feet deep and 80 feet wide from its mouth to a point immediately above the wharf of the former Glynn Canning Company. All depths refer to mean low water. Mean tidal range on the bar is 6.5 feet, at the City of Brunswick 7.3 and 7.6 feet at the upper end of the harbor. For further details see Annual Report for 1962.

Local Cooperation. Complied with to date.

Terminal Facilities. Twenty-six wharves and piers, almost all privately or state (Georgia Ports Authority) owned, have a berthing space of 7,530 linear feet. The Port of Brunswick and the State of Georgia have a transit shed and modem docks with 1,640 feet of berthing space (three general cargo berths) on East River. For further details see Port Series No. 14, Corps of Engineers (revised 2000).

Operations and Results During Fiscal Year.
Maintenance: The District used Cottrell Contracting Corporation during the third quarter in FY 03 to dredge the East and South Brunswick Rivers using the dredge "Richmond". The dredge removed 401,344 cubic yards of material at a cost of $580,147. The District used the deepening contractor, Bean Stuyvesant, LLC during the first and second quarters in FY2003 to dredge Entrance Channel using the dredges "Meridian" and Eagle 1". The dredges removed 413,625 cubic yards of maintenance material at a cost of $744,524.

Operation and Maintenance costs for the FY amounted to $2,536,600, which included such items as water quality monitoring, project condition surveying, real estate monitoring, environmental and cultural resources

monitoring. (See Table 8-A for Cost and Financial Statement.)

Condition at End of Fiscal Year. The existing project was completed in December 1960. General condition of the harbor works is satisfactory, providing maintenance dredging continues. The notice on the Final Environmental Impact Statement appeared in the Federal Register October 3, 1975. Authorized depths were maintained throughout the FY.

Total cost for existing completed project to September 30, 2002, is $120,099,399. New Work costs for the FY amounted to $8,952,434. (See Table 8-A for Cost and Financial Statement.)

New Work Dredging. Deepening the Brunswick Harbor from 30 to 36 feet began with the award of the Entrance Channel Contract on July 2, 2003 to Bean Dredging Corporation for a sum of $13,677,080. The cutterhead dredge "Meridian" began the work on September 23, 2002. The hopper dredge "Eagle" arrived on December 9, 2002 and dredged the remainder of the channel. A total of approximately 200,000 cubic yards of new work and O&M materials was removed from the channel by 1 October 2002. The District used the deepening contractor, Bean Stuyvesant, LLC during the first and second quarters in FY2003 to dredge Entrance Channel using the dredges "Meridian" and "Eagle 1". Both dredges removed a total of 4,669,837 of new work materials between September and March 2003 at a cost of $10,930,299. The dredges also removed 413,625 cubic yards of maintenance material in conjunction with the new work material at a cost of $744,524.

Bids for the Inner Harbor were opened on 17 October 2002. Three bids were received. The apparent low bid was for $66 million. The Government estimate was $28.9 million. The apparent low bidder filed a protest on the adequacy of the Government Estimate. The solicitation was cancelled on 24 December 2002 and this too was protested. This case is before the federal court of claims at this time. To account for the increased project costs due to added features and an out dated estimating program, post authorization change report were submitted in January and September 2003 for higher approval. Based on these reports, Congress revised the total project cost to $96,277,000 from 50,717,000 and the fully funded cost to $101,581,000 from 53,345,000. As of this writing, the District awaits the federal court of claims judge decision on the protest and is ready to re-advertise a repackaged project for the Inner Harbor that divides the project into two contract phases, one for predominantly sand materials and the other for rock materials. The latter contract requires environmental approvals for blasting and open water disposal.

3. LOWER SAVANNAH RIVER BASIN, GA & SC

Location. The project is located on the Savannah River between river mile 40.9 and river mile 42.0, approximately 20 river miles above the city of Savannah, GA. The project area itself is located within Effingham County, GA and Jasper County, SC. A portion of the project is within the Federal Savannah National Wildlife Refuge.

Existing Project. This environmental restoration project was authorized by a resolution passed on August 1, 1990, by the U.S. House of Representatives Committee on Public Works and Transportation. The total project cost approved is $4,222,000. The recommended plan includes a large partial diversion structure at cut #3, a plug in bend #3 below the mouth of Bear Creek, a realignment and restoration of the mouths of Bear and Mill Creeks, which provides improved flows into both creeks.

The Project Cooperation Agreement (PCA) was executed and the construction phase officially began in FY 00. Construction was completed in FY 02.

Local Cooperation. The cost share is 75% Federal and 25% non-Federal.

New Work costs for the FY amounted to $26,377. (See Table 8-A for Cost and Financial Statement.)

4. SAVANNAH HARBOR, GA

Location. Harbor entrance is 75 statute miles south of Charleston, SC, and 70 miles north of Brunswick Harbor, GA. (See NOAA Chart 11512, formerly Coast and Geodetic Survey Chart 440.)

Previous Project. For details see page 1810 of Annual Report for 1915 and page 578 of Annual Report for 1938.

Existing Project. The project provides for a channel 44 feet deep and 600 feet wide across the ocean bar about 7.0 miles long; 42 feet deep and 500 feet wide to the upper end of King Island Turning Basin and 36 feet deep and 400 feet wide to the upper end of Argyle Island Turning Basin about 22.6 miles; and 30 feet deep and 200 feet wide to a point 1,500 feet below the Houlihan Highway Bridge, about 1.5 miles, for a total length of 31.1 miles; Fig Island and Marsh Island Turning Basins 34 feet deep by 900 feet wide by 1,000 feet long. Kings Island Turning Basin 42 feet deep by 1,500 feet wide by 1,600 feet long in the vicinity of the Garden City Terminal of the Georgia Ports Authority; Argyle Island and Port Wentworth Turning Basins 30 feet deep by 600 feet long and at the extreme upper limit of the project and a 1,200 foot long by 1,050 foot wide by 40 foot deep Oyster Bed Island Turning Basin in the vicinity of Georgia Ports Authority Lash Facility. The project also

provides for sediment control works consisting of an inactivated tide gate structure across Back River; a sediment basin 40 feet deep, 600 feet wide; about 2 miles long, with an entrance channel 38 to 40 feet deep and 300 feet wide; a drainage canal across Argyle Island 15 feet deep and 300 feet wide; control works and canals for supplying fresh water to the Savannah National Wildlife Refuge; and facilities to mitigate damages to presently improved areas other than refuge lands. Mean range of tide is 7.9 feet at the upper end of the harbor and 6.9 feet at the lower end. Extreme ranges are about 11.1 and 10.7 feet, respectively.

The tide gate structure across Back River was taken out of operation as of March 1991 to decrease salinity levels in the wildlife refuge. The drainage canal across Argyle Island, which was part of the original tide gate project, was closed as of April 1992 by the New Cut closure contract done by a Section 1135 program. The cost of this contract was $1,531,847.

Local Cooperation. Local interests must provide suitable disposal areas and retaining dikes for construction and future maintenance of the project. The Georgia Department of Transportation became the local sponsor in December 1999 and has met all requirements to date.

Terminal Facilities. Sixty-one piers and wharves adequately serve existing waterborne commerce of the port. These facilities, with use of dolphins, have a combined berthing space of 46,930 linear feet at mean low water. Included in the berthing space are six container berths with 271 acres of handling area. All have railway and highway connections. Lash Facilities are located at the entrance to the harbor and have depth ranging up to 38 feet mean low water. The berthing space of Lash facilities is included in the above combined berthing space. For further details, see Port Series No. 14, Corps of Engineers (revised 1982) and Annual Report for 1990.

Savannah Harbor Deepening. The Savannah Harbor Deepening project was authorized by WRDA 92 on October 31, 1992. The LCA was signed with the local sponsor and the Georgia Ports Authority, on March 2, 1993. Because Federal appropriations would be no earlier than FY 95, the LCA was written and negotiated to allow the local sponsor to up-front the construction funds upon project authorization and the signing of the LCA.

The first phase contracts for the Savannah Harbor Deepening project was awarded in March 1993 for the outer bar channel from Station 0+000 to -60+000 and the lower inner harbor channel from Station 0+000 to 70+000 for $7,298,876 and $8,748,883, respectively. The second phase that requiring significant real estate acquisition, was awarded in July 1993 from Station 70+000 to 103+000, for $4,675,376. The total project scope entails the deepening of the harbor by 4 feet, from -38 ft mlw to -42 ft mlw in the inner harbor and from -40 ft mlw to -44 ft mlw in the bar channel, for a total of 31 miles of harbor improvement.

Construction was initiated with the Inner Harbor contract (0+000 to 70+000) on May 1, 1993, and was completed on April 21, 1994. The authorized cost for the Savannah Harbor Deepening project is $50,050,000. The current estimated cost for the project is $28,107,635. New Work costs for the FY amounted to $8,462. (See Table 8-A for Cost and Financial Statement.)

New Work costs for the FY for Savannah Harbor Widening amounted to $704.

In the FY 95 appropriations bill, Congress provided $11,585,000 as reimbursement to the local sponsor for the Federal share of the NED plan. The appropriations bill also provided the $2,083,000 of those funds be provided for the cost shared Savannah Riverwalk Extension. The PCA for the Savannah Riverwalk Extension Project was executed on July 21, 1995. The final cost estimate for the project is $3,532,499, of which the Federal share was fixed at $2,083,000 and the City of Savannah's share was $1,449,499. Work was completed as scheduled on May 24, 1996 and a dedication ceremony took place on June 10, 1996. In November 1996, the Georgia Ports Authority received $7,500,000 towards their reimbursement of the Federal share of the project and the balance of the Federal share of $1,500,000 has been forwarded now that all the contracts have been closed out and the final audits completed.

Savannah Harbor Expansion. The Georgia Ports Authority completed the Feasibility Study and Tier I Environment Impact Statement (EIS) for the Savannah Harbor Expansion project in August 1998, under the authority of Section 203 of WRDA 86. Based on this study, WRDA 1999 gave a conditional authorization for construction. The conditions are the completion of a Chief's Report and the completion of a Tier II EIS and General Reevaluation Report (GRR). In addition, this Tier II EIS and GRR must obtain the approvals from the Secretary of the Army, the Director of the Environmental Protection Agency, and the Secretary of Commerce and Interior.

The Georgia Ports Authority is currently underway with the additional Environmental Studies as required by the authorization. These studies are scheduled for completion in FY 2005. The Georgia Ports Authority and the Department of the Army signed a Memorandum of Understanding in July 2001 regarding the preparation of the Tier II EIS. The authorization calls for the Savannah Harbor to be deepened as much as 6 feet, from the present –42 feet mlw to as deep as –48 feet at a first cost (October 1997 price levels) of $229,527,000.

In February 2002, the notice of intent to file a draft Tier II EIS on the project was published in the Federal Register.
An in-progress review (IPR) was held with HQUSACE

and OHSA C&W in October 2003.

Operations and Results During Fiscal Year. Maintenance. The District dredged the Inner Harbor from Station 0+000 to 112+500 and the Sediment Basin with a contract to Marinex Corporation using the dredges "Arlington and Hampton Roads". The dredges dredged 2,111,161 cubic yards and 33,121 ft of station dredging from Station 0+000 to 112+500 and 2,555,111 cubic yards from the Sediment Basin at a cost of $6,021,929. The dredge "Bayport" owned by Manson Construction Company dredged 529,921 cubic yards from the Entrance Channel at a cost of $1,803,661.

Operation and Maintenance costs for the FY amounted to $13,199,555, which included such items as water quality monitoring, project condition surveying, and cultural resources monitoring. (See Table 8-A for Cost and Financial Statement.)

Condition at End of Fiscal Year. Training walls, jetties, and other structures are in fair condition. Authorized channels are maintained by a planned dredging program with work at critical areas, when necessary. The notice on the Final Environmental Impact Statement appeared in the Federal Register June 25, 1976. Notices of availability on two Final Supplements to the Environmental Impact Statement appeared in the Federal Register September 25, 1978, and January 8, 1980.

5. SAVANNAH RIVER BELOW AUGUSTA, GA

Location. Savannah River is formed by the confluence of the Tugaloo and Seneca Rivers on the boundary line between South Carolina and Georgia. It flows southeast 314 miles, forming the boundary line between two states, and empties into the Atlantic Ocean 16.6 miles below Savannah, GA. (See NOAA Charts 11514 and 11515, formerly Geological Survey maps of South Carolina and Georgia.)

Previous Projects. For details see page 1813 of Annual Report for 1915 and page 581 of Annual Report for 1938.

Existing Project. The authorized project provides for a channel 9 feet deep and 90 feet wide (at ordinary summer flow of 5,800 second-feet at Augusta, GA) from the upper end of the Savannah Harbor to the head of navigation at Augusta, above the 13th Street Bridge (R.M. 202.6), a total distance of about 181 miles. A lock and dam is located approximately 15 miles below the upper limit of the project at New Savannah Bluff. Improvement is to be obtained by construction of contraction works, closure of cutoffs, bank protection, dredging, removal of snags, over hanging trees and wrecks, and open-river regulation. Mean tidal variation at the mouth of the river is 7 feet. Freshet variation above the normal pool level (elevation 114.5 mean sea level) of New Savannah Bluff Lock and Dam at mile 187 is ordinarily about 13 feet with an extreme of 34 feet. Due to lack of commercial use, the river has not been dredged since FY 79.

Local Cooperation. Complied with to date.

Terminal Facilities. The only water terminals served by this improvement are at Augusta, Sylvania, and at or near Savannah. Augusta provided a municipal dock valued at $50,000 and Georgia Ports Authority constructed a state port at Augusta, GA, costing about $418,000. These facilities were expanded in 1965 at an additional cost of about $250,000. These are supplemented by natural landings along the river and extensive facilities at Savannah.

Operations and Results During Fiscal Year. In general, open-channel works are in good condition. The notice on the Final Environmental Impact Statement appeared in the Federal Register February 18, 1977. There were no dredging projects during this fiscal year.

Operation and Maintenance costs for the FY amounted to $203,818. (See Table 8-A for Cost and Financial Statement.)

6. RECONNAISSANCE AND CONDITION SURVEYS

Condition Surveys were conducted in FY 03 on the following projects:

AIWW
Brunswick Harbor
Savannah Harbor

7. OTHER AUTHORIZED NAVIGATION PROJECTS

(See Table 8-C.)

8. NAVIGATION WORK UNDER SPECIAL AUTHORIZATION

Navigation activities pursuant to Section 107, Public Law 86-645 (preauthorization). Expenditures in FY 03 totaled $37,326. Coordination account: $9,100;Port Wentworth, GA: $1,504; and Lazaretto Creek, GA: $28,211.

Mitigation of shore damages activities pursuant to Section 111, Public Law 90-483 (preauthorization). Tybee Island, GA incurred costs in FY 03 of $52,139.

Beach Erosion Control

9. TYBEE ISLAND, GA

Location. Tybee Island is located directly south of the Savannah River entrance, about 17 miles east of the City of Savannah, GA. (See NOAA 11512, 11513, and 11509, formerly U. S. Coast and Geodetic Survey Charts Numbers 440, 1240, and 1241, and on maps included in HD 92-105, 92nd Cong.) The only portion of the island that has developed is bounded on the north by the south channel of the Savannah River, on the east by the Atlantic Ocean, and on the south and west by Tybee Creek and other small tidal streams. The city of Tybee Island, GA, occupies this area, hereinafter referred to as "Tybee Island." The ocean face of this area has a wide sandy beach. Tybee Island is about 3.5 miles long from its northerly tip to the mouth of Tybee Creek with an average width of about 0.5 miles. Behind the beach lies a line of sand dunes, a number of which have been removed during the years to make room for improvements and for various other reasons. Those that remain are from 10 to 20 feet high. The ground elevation west of the dunes is from 10 to 18 feet and slopes westward to the salt marsh.

Existing Project. The Water Resources Development Act of 1976 authorized a Project Plan of Improvement for an 800-foot rock groin at the north end of the island, with a 225-foot tie-in to high ground. An additional 1,200-foot extension of this groin is deferred, as are two additional intermediate groins (480 feet long); these would be added at a later date, if needed. The plan also provided for the initial restoration of approximately 13,300 feet of beach, from the vicinity of 18th Street to the terminal groin located at the northern end of the island. Periodic nourishment is authorized to maintain suitable beach dimensions. Section 201 of the Flood Control Act of 1965, U.S. Senate Committee Resolution of June 22, 1971 approved the project as contained in House Document No. 92-105. The main features included a north terminal groin that was completed in June 1975; initial nourishment in March 1976; construction of the south terminal groin in February 1987; the first periodic renourishment in April 1987, and the second renourishment in July of 2000. The Federal Project included 2.6 miles of oceanfront beach between the north and south terminal rock groins.

Local Cooperation. Local interests must: (a) contribute in cash the required percentage of the first cost (including costs for construction, engineering and design, and administration; and excluding the cost of lands, easements, rights-of-way and relocation) of all items of work to be provided by the Corps of Engineers. The local contribution is presently estimated at 39.9 percent to be paid in a lump sum prior to start of construction or in installments prior to the start of pertinent work items in accordance with construction schedules as required by the Chief of Engineers, the final apportionment of cost to be made after the actual costs have been determined; (b) provide maintenance and repair of the groins, and provide (after the first 10 years of project life) periodic nourishment of the restored beach as may be required to serve the intended purpose during the life of the project; (c) provide without cost to the United States all lands, easements, rights-of-way, and relocations required for construction and subsequent nourishment of the project; (e) control water pollution to the extent necessary to safeguard the health of bathers; and (f) provide, without cost to the United States, access and facilities necessary for realization of the public benefits upon which Federal participation is based, and maintain continued public use of the beach and administer it for public use during the life of the project, and provide further the construction on the project shall not be started until local interests furnish lands for beach access and parking, satisfactory to the Chief of Engineers, for the entire project limits.

Condition at End of Fiscal Year. Section 934 of 1986 WRDA and Corps policy guidance required a reevaluation of renourishment projects. The purpose was to determine if future renourishments met current policy and further Federal participation was justified. The analysis, completed in October 1994, recommended extending the project life for the remaining 28 years of the 50-year project life. Section 506 of 1996 WRDA, approved in June 1995, was the formal Secretary of the Army authorization to continue periodic renourishment until 2024. The analysis further indicated the National Economic Plan (NED) might be different than the authorized project and lead to a more detailed analysis in the Special Report on South Tip Beach/Back River.

The Asst. Secretary of the Army (Civil Works) approved the Special Report on South Tip Beach/Back River on August 24, 1998. The report determined the South Tip and Back River segments should be added to the authorized project. It resulted in passage of Section 301 of 1996 WRDA that modified the authorized project to include the portion of Tybee Island located south of the existing south terminal groin between 18th and 19th Streets, including the east bank of Tybee Creek up to Horse Pen Creek as shown below. The project now extends from the north terminal groin southward for 3.5 miles to Horsepen Creek.

Section 301 of Water Resources Development Act of 1996 modified the authorized project as follows:

SECTION 301(b) PROJECTS SUBJECT TO REPORTS.--The following projects are modified as follows, except that no funds may be obligated to carry out work under such modifications until completion of a report by the Corps of Engineers finding that such work is technically sound, environmentally acceptable, and economically justified.

(4) TYBEE ISLAND, GEORGIA.--The project for beach erosion control, Tybee Island, Georgia, authorized pursuant to section 201 of the Flood Control Act of 1968 (42 U.S.C. 1962d-5; 79 Stat. 1073-1074) is modified to include as an integral part of the

project the portion of Tybee Island located south of the existing south terminal groin between 18th and 19th Streets, including the east bank of Tybee Creek up to Horse Pen Creek.

The Department of the Army and the City of Tybee Island, Georgia, signed a Project Cooperative Agreement (PCA) that allowed renourishment of oceanfront, nourishment of a State placed groin field on South Tip, and construction of several rock groins and initial nourishment in Back River. (Civil Works) City of Tybee Island is the non-Federal sponsor for the project. The agreement is included in Appendix B. The project, now constructed, includes:

- Renourishing 13,200 feet of oceanfront beach between north and south Federal terminal groins to provide minimum 124-foot wide beach at high tide.
- Constructing rock groin field along 1,800 feet of Back River Beach.
- Restoring the beach along Back River Beach.

In September 1999, construction of the Back River Beach groins began and the associated beach renourishment was completed in July 2000.

The District continued the long term monitoring in FY 2002, performing two full beach surveys in March and August at a contract cost of $27,857. The surveys showed only slight erosion occurring along the Ocean Front beach with marked erosion along the Back River segment. Per the Operations and Maintenance Manual, the South Tip groins were notched once the total erosion between the three Back River cells exceeded 40 percent of the baseline volume. The notching occurred on October 16, 2002 with six of the Campbell units removed from the oceanward end of the three groins. Pre-notching topographic survey information was gathered on October 13, 2002. Agreement was reached that requires three of the units to be replaced if the total sand loss in any cell reaches 30 percent or three feet on average along the seawall in any groin cell or if five feet of the seawall is exposed at any given location within the groin fields.

In FY 2003, the District continued to monitor the beach profiles with particular emphasis on the South tip and Back River. Two monitoring surveys of the Back River and South Tip were taken on 13 October 2002 and 15 January 2003. There was 100 cubic yards of material gained on the Back River while 3000 cubic yards of material were gained on the South Tip and between the groins. The criteria to replace the Campbell Units was as follows:

Review Monitoring surveys after 6 months.
1) If 50% of material lost off South Tip is not accreted on the Back River Beach, replace the modules.
2) If the Sea wall is exposed for 25 feet or less or an average 3 feet maximum of 5 feet is exposed at any given location between the groins the modules must be replaced.
3) Terminate if more than 30% in any groins cell on the South Tip is lost or if 25% or less of the material quantity eroded from the South Tip is accreted on Back River Beach, or the dune system is threatened.
4) Terminate if documented hazards exist to bathers.

A full monitoring survey of the entire beach was completed on 13 June 2003. The beach face was shown to be eroding and the local sponsor requested an analysis, as it appeared the groin notching was exacerbating the erosion. The analysis was inconclusive and the experiment was continued. By October 2003, the beach face along the southern end had eroded but the South Tip and Back River had accreted dramatically with a huge sand bar forming along Pelican spit.

The studies planned for FY 04/05 were an analysis of the possibly of including the North Beach into the federal project, a General Reevaluation Report of the existing project and a Section 111 study to determine the impacts to the beach caused by the Savannah Harbor Federal navigation channel. Of the $225,000 requested in FY04, Congress under the CG Program allocated only $150,000 of federal funds. Only $116,000 of that was available due to Saving and Slippage.

Flood Control

10. INSPECTION OF COMPLETED FLOOD CONTROL PROJECTS

Expenditures for the FY amounted to $30,142. (See Table 8-A&D.)

11. OTHER AUTHORIZED FLOOD CONTROL PROJECTS

(See Table 8-D)

12. OATES CREEK, RICHMOND COUNTY, GA

Oates Creek is a major drainage outlet for flood water from an urban area of Augusta, GA. A flood control study of Oates Creek was authorized and completed as part of the Savannah River Basin study. The Oates Creek study area is located just south of Augusta in Richmond County.

The revised FEMA mapping has been prepared in order to reduce the flood insurance costs of the inhabitants of the Oates Creek Basin. The Operation and Maintenance manual was completed in December 1993 and the project was turned over to Richmond County for long term maintenance. For more details, see Annual Report

for FY 1995. Based on the Design Deficiency Evaluation Reconnaissance Report, the Oates Creek project will require some repair and improvement work. The deficiency correction is currently on hold awaiting available funds to award the contract for the construction. Total cost of the repair project is $2,230,000. New Work costs for the FY amounted to $72,814.

13. FLOOD CONTROL WORK UNDER SPECIAL AUTHORIZATION

These Flood Damage Reduction activities are accomplished under the authority of Section 205, Flood Control Act of 1948 (Public Law 858, 80th Congress) as amended. During FY 02 a total of $251,747 was spent on preauthorization flood damage reduction studies. Study efforts during FY 03 were as follows: Coordination Account: $20,344; Harmon Canal: $139,266; and Unnamed Tributaries Ben Hill County: $92,137.

14. EMERGENCY STREAMBANK AND SHORELINE PROTECTION UNDER SPECIAL AUTHORIZATION

In FY 03, costs were incurred for Section 14, Coordination Account: $7,584 and Augusta Ports: $3,000.

Environmental Restoration

15. PROJECT MODIFICATION TO IMPROVE ENVIRONMENT UNDER SPECIAL AUTHORIZATION

These projects are accomplished under the authority of Section 1135, Water Resources Development Act of 1986 (Public Law 99-662) as amended. During FY 03 costs were incurred as follows: Coordination Account: $18,017 and Preliminary Restoration Plan: $17716. Environmental study efforts were as follows: Back River Restoration, GA: $34,993.

16. AQUATIC ECOSYSTEM RESTORATION UNDER SPECIAL AUTHORIZATION

These projects are accomplished under the authority of Section 206, Aquatic Ecosystem Restoration, Water Resources Development Act of 1996. During FY 03 costs were incurred as follows: Coordination Account: $23,857; Preliminary Restoration Plans: $-8,226; Beaver Ruin Creek: $135,686; Jackson Creek: $62,520; Mill Creek: $110,257; and Quacco Canal: $180,038.

Multiple-Purpose Power Projects Including Major Rehabilitation

17. J. STROM THURMOND DAM AND LAKE, GA AND SC (Formerly Clark Hill Lake)

Location. J. Strom Thurmond Dam and Lake is located at mile 237.7 on the Savannah River about 22 miles upstream from Augusta, GA. (See Geological Survey maps of GA and SC.)

Existing Project. The authorized project provides for construction of J. Strom Thurmond Dam and Reservoir, the final cost of which was $79,156,300. The dam has a concrete section 2,282 feet long with a maximum height of 200 feet and a controlled spillway 1,096 feet long. The concrete section is flanked on the west side by a rolled-earth embankment of 2,069 feet and on the east side by a similar embankment of 1,329 feet.

The total length of the dam is 5,680 feet. The lake covers 71,100 acres at maximum power pool elevation 330 msl. It provides a total storage capacity of 2,900,000 acre-feet allocated as follows: flood control 390,000 acre-feet; hydropower 1,045,000 acre-feet; dead storage 1,465,000 acre-feet. At the end of the FY there were 3 units at 48,000 Kilowatts, 2 units at 52,000 Kilowatts, 2 units unavailable for rehab for a capacity of 248,000 Kilowatts. with an average annual output of 700 million kilowatt-hours of electrical energy.

Local Cooperation. None required.

Operations and Results During Fiscal Year. Net generations of electric energy for the period was 1,194,010 megawatt-hours, all of which was marketed by the Southeastern Power Administration. Cumulative flood damage prevented through FY 03 was $38,471,744. Maintenance: Operation and Maintenance costs for the FY amounted to $8,932,418. (See Table 8-A for Cost and Financial Statement.) The notice of availability on the Final Environmental Impact Statement on J. Strom Thurmond Dam and Reservoir Operation and Maintenance appeared in the December 18, 1981 Federal Register. In FY 03, 5,881,234 persons visited the facility.

Condition at End of Fiscal Year. Construction is complete except for providing additional recreational development.

Major Rehabilitation. The J. Strom Thurmond Powerplant was included as a project in the Major Rehabilitation Program in 1996. An Evaluation Report was approved in July 1994. Appropriations were provided in the FY 96 Energy and Water Bill in November 1996. Current estimate is $69,700,000. All eight contracts have been awarded. Current project cost estimate remains at $69,700,000. Project completion date is May 2006. Currently seven of the eight contracts have been completed in FY 03 with one more scheduled

for completion in 2006. Major Rehabilitation costs for the FY amounted to $9,096,499. (See Table 8-A for Cost and Financial Statement.)

18. HARTWELL DAM AND LAKE, GA AND SC

Location. Hartwell Dam and Lake is on the Savannah River 305 miles above its mouth and 89 miles upstream from Augusta, GA (See Geological Survey maps of GA and SC.)

Existing Project. The dam is a concrete gravity-type structure 1,900 feet long with a maximum height of 204 feet and a controlled spillway 480 feet in length. The concrete section is flanked on the east and west abutments by earth embankments totaling 13,362 feet in length and by a saddle dike 2,590 feet long also on the west side. Total length of the dam is 17,852 feet. At maximum conservation pool elevation of 660 feet the lake covers 55,950 acres. Total capacity of the lake is 2,843,000 acre-feet of storage allocated as follows: flood control - 293,000 acre-feet; hydropower - 1,416,000 acre-feet; dead storage - 1,134,000 acre-feet. Four 66,000 kilowatt generators having a generating capacity of 264,000 kilowatts were installed initially with provisions for a fifth unit. Unit 5 went into operation in 1983 with a nameplate rating of 80,000 kilowatts. Rehabilitation Phase I is complete for Units 1-4 and has increased their nameplate rating to 85,500 kilowatts for a total plant nameplate capacity of 422,000 kilowatts.

Local Cooperation. None required.

Operations and Results During Fiscal Year. Net generation of electrical energy for the period amounted to 761,270 megawatt-hours, all of which was marketed by the Southeastern Power Administration. Cumulative flood damage prevented through FY 03 is $19,114,334. Maintenance: Operation and Maintenance costs for the FY amounted to $14,653,419. (See Table 8-A for Cost and Financial Statement.) The notice on the Final Environmental Impact Statement on the operation and maintenance of Hartwell Dam and Lake appeared in the Federal Register on August 21, 1978. Approximately 10,010,012 persons visited the lake in FY 03.

Major Rehabilitation. The Hartwell Powerplant Major Rehabilitation project was approved by HQUSACE, and was included in the FY 96 budget. The project scope includes the rewinding of the first four generators, the replacement of the transformers, the refurbishment of the turbine water passageways, and the replacement of key electrical/mechanical peripheral equipment and the replacement/refurbishment of the four older headgates. The fully funded cost for the recommended plan is $26,000,000. All five contracts have been awarded and Rehabilitation Phase I was completed in September 2000. Rehabilitation Phase II is underway with plans and specifications being completed in FY 03. Phase II will include replacing the exciters and voltage regulators, governor upgrades, replacing the 230kV switchyard breakers, and upgraded the switchyard equipment and current capacity. Funding in the amount of $10 million has been authorized for Phase II Rehabilitation Program. Schedule for completion of Rehab Phase II is FY 05. Major Rehabilitation costs for the FY amounted to $768,136.

19. HARTWELL LAKE/CLEMSON UPPER & LOWER DIVERSION DAMS, GA AND SC

Location. Both Diversion Dams are located on Government property located between Clemson University and the Savannah River Basin on the South Carolina side of Hartwell Lake, approximately 20 miles upstream of Hartwell Dam.

Existing Project. The Remedial Measures to Increase Post Earthquake Stability for both Upper and Lower Clemson Diversion Dams in accordance with the Dam Safety Assurance Program was authorized in Senate and House Committee resolutions pursuant to the Water Resources Development Act of 2000, as presented to 106th Congress dated January 24, 2000.

Both upper and lower earthen dams were constructed in 1960 and 1961 prior to the impoundment of Hartwell Reservoir to protect Clemson University lands and existing facilities. The upper dam is 2,100 feet and the lower dam is 3,000 feet long, both have a maximum height of 75 feet. Seismic evaluation indicates that the downstream slopes of both dams (the Clemson University side) will fail from seismic events that could occur with a probability of once in every 475 years. Earthquake triggering events of as low as .07 to .10 g forces could cause liquefaction and subsequent failure. In this scenario, 390 acres of Clemson University will flood in about 5 hours. Economic damage is estimated at $1.1 billion and there is a high probability that human life will be lost in such event.

The total project for both upper and lower diversion dams includes the following construction components:

a. **Excavation at Upper & Lower Dams**

- Temporarily excavate existing material from the downstream side over the entire 2,100 and 3,000 foot lengths of both upper and lower dams, respectively. The excavation will take place between approximate elevations of 645 to 640' msl. This section traverses 50 feet perpendicular to the dams and involves removing material to an average depth of about 16 feet.

b. **Deep Soil Mixing at Upper and Lower Dams**

• Deep soil mixing elements will be installed to a depth of two feet below the existing loose alluvium layer. The deep soil mixing elements will be installed into 3 to 8 foot diameter auger holes driven to a varying depths of 40 to 45 feet. All holes will be overlapped into each other to create 50 foot continuous ground walls oriented perpendicular to the axis of each dam and spaced every 11.5 feet. A longitudinal wall paralleling the dam axis will connect the upstream ends of the transverse walls and they run the entire lengths of both dams.

c. **Restore Downstream Side of the Dams to Original Template**

Original excavation material will be reused. Excess excavated material will be placed in the lower berm.

Local Cooperation. None required.

Condition at End of Fiscal Year. The project is funded with construction general funds. The total project cost estimate is $8,741,000 and this figure includes all engineering and design as well as supervision and administration during construction and a 25 percent contingency on the construction cost estimate. The project design was completed in June 2004 and it was awarded for construction in September 2004. The construction period is 18 months and scheduled for completion in May 2005. New work costs for the FY amounted to $382,570. (See Table 8-A for Cost and Financial Statement.)

20. RICHARD B. RUSSELL DAM AND LAKE, GA AND SC (Formerly Trotters Shoals Lake, GA and SC)

Location. Richard B. Russell Dam is located on the Savannah River 275.1 miles above its mouth, 29.9 miles below Hartwell Dam, and about 37.4 miles above J. Strom Thurmond Dam (formerly Clarks Hill Dam). (See NOAA Survey maps of GA and SC.)

Existing Project. The authorized project provides for construction of Richard B. Russell Dam and Lake substantially in accordance with the recommendations. The latest approved (FY 03) cost estimate for the project is $626,000,000 of which $466,969,000 is for construction; $28,857,000 for lands and damages; $4,880,000 for cultural resources; and $124,174,000 for engineering/design, supervision/administration, and all project studies, including environmental. Approval was received in January 1977 to include minimum provisions for pumped storage.

A Feasibility Report and Final Environmental Impact Statement to address the installation and operation of four 75 MW reversible pump-turbines were prepared in 1979 with the Record of Decision signed in August 1980. The Richard B. Russell Fish and Wildlife Mitigation Plan was completed in 1981, approved by the Assistant Secretary of the Army (Civil Works) in September 1982, and the provisions are being implemented. Since 1986, the District has conducted comprehensive Fishery studies in the Russell tailrace and J. Strom Thurmond Lake (formerly Clarks Hill Lake) downstream. In addition, the District conducted water quality studies, hydraulic modeling, and an evaluation of various fish protection measures associated with hydroelectric projects. The results of these study efforts have been used to evaluate the need to develop fish protection at the Richard B. Russell Project associated with pumped storage operations. This evaluation is presented in a supplement to the final Environmental Impact Statement (EIS) on pumped storage. The Record-of-Decision (ROD) was signed September 1991. Installation of pumped storage is complete; final Phase III environmental testing was completed in October 1996.

The Phase III Environmental Report and its Interagency Review was completed in August 1997. The District completed the NEPA Documentation Phase and also completed discussions with the resource agencies in attempting to resolve issues. SAS reached an agreement with SCDNR on operational measures and general mitigation package. The remaining issue was that SC insisted on a consent order for commercial operations. COE could not accept this condition and attempted to resolve this with a Memorandum of Agreement (MOA) in addition to the NEPA Documentation. SCDNR did not accept the MOA. DOJ/USACE request for summary judgement and oral arguments were presented in the Charleston, SC U.S. District Court on October 17, 2000, requesting release from the injunction to commercially operate this 320 mw addition. The court ruled in the Corps' favor on May 3, 2002 and the units were placed into commercial production on September 1, 2002. All cost shared recreation is complete except a wilderness park that was planned in the McCalla Peninsula.

Local Cooperation. Federal Water Project Recreation Act. Public Law 89-72; 79 stat. 213C (for Legislative History of Act see page 1864).

Operations and Results During Fiscal Year. Net generations of electric energy for the period were 746,708 megawatt-hours. Maintenance: Operation and Maintenance costs for the FY amounted to $6,693,069. (See Table 8-A for Cost and Financial Statement.) These funds were for management of lake and power activities. (See Table 8-A for Cost and Financial Statement.) Approximately 1,070,622 persons visited the lake in FY 03.

Condition at End of Fiscal Year. The project is 97 percent complete.

Total cost of project to September 30, 2003, is $730,164,873. New Work costs for the FY amounted to $2,834,081. (See Table 8-A for Cost and Financial Statement.)

General Investigations

21. SURVEYS

During FY 02, costs of $1,042,728 were incurred as follows: Flood Damage Prevention Studies: $412,547; Special Studies: $237,479; Watershed/Comprehensive Studies: $250,871; Review of Authorized Projects: $69,961; and Miscellaneous Activities: $71,870.

22. COORDINATION WITH OTHER AGENCIES

Planning Assistance to States activities are accomplished under the authority of Section 22, Water Resources Development Act of 1974, as amended. During FY 03, a total of $151,759 was expended.

23. COLLECTION AND STUDY OF BASIC DATA

During FY 03, under the Flood Plain Management Services Program, flood hazard related information and assistance were provided to state and local governments on a nonreimbursable basis and to other Federal agencies and private persons on a cost recovery basis. Expenditures were as follows: Flood Plain Management Services: $25,982; Technical Services: $34,985; Quick Responses: $20; five Special Studies: $56,465; HES Dialogue: $59; and Hydrologic Studies: $15,203.

24. PRE-CONSTRUCTION ENGINEERING AND DESIGN (PED)

Total PED expenditures in FY 03	
Projects Not Fully Authorized:	$699,642.
Projects Fully Authorized:	335,490.

Savannah Harbor Expansion, GA & SC: $699,642. Congress added funds for development of the tier II EIS, General Reevaluation Report and the Federal Oversight of the project that was formulated by a non-Federal interest (The Georgia Ports Authority) (GPA) under Section 203 of WRDA 86. The project was conditionally authorized for construction by Congress in the Water Resources Development Act of 1999. The GPA is conducting numerous studies and data gathering under Federal oversight for the required Tier II Environment Impact Statement.

New Savannah Bluff Lock & Dam, GA & SC: $335,490. In the Water Resources Development Act of 2000 and Omnibus Appropriation Act, January 2001, Congressional direction was provided to repair the project at Federal expense, including provision of a fishway. Congressional authorization to transfer the project to the City of North Augusta and Aiken County, SC after the repairs was also provided. This project consists of a lock chamber, dam, operation building, and a 50-acre park and recreation area in Georgia. A naturalistic designed channel will be built on Government property located on the SC side of the facility.

Miscellaneous

25. CATASTROPHIC DISASTER PREPAREDNESS PROGRAM

Continuity of Operations	$ 13,962
Catastrophic Disaster Response Planning	0
Emergency Operations Support	1,220
CDRP Training & Exercise	6,093
TOTAL:	$ 21,275

26. OTHER PROGRAMS AND ACTIVITIES

J. Strom Thurmond	$ 37,400
Hartwell Lake MPP	28,800
Ranger Uniforms	4,101
R.B. Russell Dam & Lake MPP	25,800
Anti-Terrorism/Force Protection	15,253
TOTAL:	$111,354

27. FLOOD CONTROL AND COASTAL EMERGENCIES

Disaster Preparedness Program (Code100)	$387,509
Emergency Operations (Code 200)	16,855
Rehabilitation (Code 300)	0
Reimbursable Work for Others	171,921
TOTAL	$576,285

28. GENERAL REGULATORY FUNCTIONS

Permit Evaluation	$2,762,000
Enforcement	559,000
Studies	0
Environmental Impact Statement	0
Administrative	Appeals
0	
Compliance	372,000
TOTAL:	$3,693,000

29. RIVERS AND HARBORS CONTRIBUTED FUNDS

Contributed funds expended in FY 03 for authorized Federal studies included:

Ben Hill County, GA	$69,643
Brunswick Harbor, GA	3,406,017
Chatham County Emergency Flood Reduction Study Augusta-Richmond, GA	416,784
Harmon Canal, GA	70,001
Lower Savannah River Restoration Study	14,667
Oates CR. Flood Control	7,684
PAS-GA-Port Wentworth	0
PAS-GA-SWCC Dam Safety	24,806
PAS-GA-Effingham Co. Stromwater Mgmt	27,227
PAS-Flint, Ogeechee Chattahoochee RVR	238
Savannah Harbor, GA	598,717
Savannah River Basin Comp	86,547
Savannah River Below Augusta	15,500
Savannah Harbor Navigation	3,128,314
Tybee Island, GA	13,928
TOTAL:	$7,881,013

TABLE 8-A **COST AND FINANCIAL STATEMENT**

See Section In Text	Project	Funding	FY-00	FY-01	FY-02	FY-03	Total to Sep 30, 2003
1.	Atlantic Intra-coastal Water-way between Norfolk, VA, and the St. Johns River, FL	New Work: Approp.					
		Cost	--	--	--	--	958,096(1)
		Maint: Approp.	--	--	--	--	958,096(1)
		Cost	1,567,808	1,847,838	2,786,400	213,922	40,727,475(2)
			1,641,128	1,679,850	2,828,850	324,936	40,712,264(2)
2.	Brunswick Har-bor, GA	New Work: Approp.		210,000	1,311,000	8,903,000	16,955,608(3)
		Cost	503,000	158,939	1,300,474	8,952,434	17,728,699(3)
		Maint: Approp.	446,633	3,226,224	2,310,600	2,565,081	115,016,333(4)
		Cost		3,230,769	2,371,140	2,536,600	113,859,734(4)
	(Contributed Funds)	New Work: Approp.	7,030,500				
		Cost	7,032,468	10,971	1,370,650	2,400,000	
				204,773	16,089	3,387,697	
			--				
			-2,876				
3.	Lower Savannah River Basin, GA & SC	New Work: Approp.	168,000	157,000	2,351,000	26,000	2,702,000
		Cost		175,806	2,438,534	26,377	2,701,802
			61,085				
	(Contributed Funds)	New Work: Approp.	--	220,000	900,000	-45,000	
		Cost	--	330	1,052,318	14,667	
4.	Savannah Har-bor, GA	New Work: Approp.		177,000	540,000	648,000	68,992,721(5)
		Cost	163,000	214,474	510,662	699,641	68,374,215(5)
		Maint: Approp.	217,928	10,734,414	7,124,103	13,105,549	296,690,127(6)
		Cost	13,581,368	10,631,540	7,267,055	13,199,555	296,952,028(6)
			13,571,188				
	(Contributed Funds)	New Work: Approp.		564,126	5,760,855	---	
		Cost		3,941,368	5,348,842	598,717	
			30,540,032				
			2,183,377				
5.	Savannah River below Augusta, GA	New Work: Approp.	--	--	--	--	6,790,031(7)
		Cost	--	--	--	--	6,790,031(7)
		Maint: Approp.	194,000	205,602	218,907	183,761	25,483,041
		Cost	286,419	196,625	203,072	203,818	25,422,106

TABLE 8-A **COST AND FINANCIAL STATEMENT**

See Section In Text	Project	Funding	FY-00	FY-01	FY-02	FY-03	Total to Sep 30, 2003
9.	Tybee Island, GA	New Work: Approp.	--	--	30,000	---	10,415,249(8)
		Cost	3,992,265	56,882	12,985	52,139	10,074,019(8)
	(Contributed Funds)	New Work: Approp.		--	--		
		Cost	700,000	10,987	54,177	13,928	
			3,617,006				
10.	Inspection of Completed Flood Control Projects	Maint: Approp.		47,787	24,897	30,144	963,745
		Cost	62,853	49,084	26,958	30,142	965,739
			66,503				
17.	J. Strom Thurmond Dam and Lake, GA and SC (Formerly Clark Hill Lake)	New Work: Approp.	--	--	--	--	
		Cost	--	--	--	--	84,880,940(9)
		Maint: Approp.		13,462,238	8,745,961	9,238,323	84,876,004(9)
		Cost	8,449,500	10,594,980	11,172,854	8,932,418	217,686,367(10)
			10,116,982				216,895,145(10)
		Major Rehab: Approp.		5,055,000	7,981,000	9,037,000	
		Cost	8,500,000	6,037,635	8,579,369	9,096,499	47,848,000
			9,187,982				47,842,788
18.	Hartwell Dam and Lake, GA and SC	New Work: Approp.					115,874,985(11,12)
		Cost					115,876,925(11,12)
		Maint: Approp.	9,702,500	14,138,464	12,917,881	14,531,146	222,846,618(13)
		Cost	10,300,248	12,546,343	14,266,316	14,653,419	223,400,035(13)
		Major Rehab: Approp.	5,086,000	-65,000	2,558,000	528,000	34,959,950
		Cost	5,909,315	682,712	2,436,595	768,136	32,479,511
19.	Hartwell Lake/ Clemson Upper & Lower Diversion Dams, GA and SC	Major Rehab: Approp.			315,000	396,000	711,000
		Cost			637,499	382,570	1,020,069
20.	Richard B. Russell Dam and Lake, GA and SC (Formerly Trotters Shoals)	New Work: Approp.	2,882,000	5,084,000	2,789,000	1,316,455	
		Cost	2,517,471	4,979,574	2,135,692	2,834,081	634,779,455
		Maint: Approp.	7,149,000	8,274,689	8,561,334	6,729,434	633,763,622
		Cost	8,073,013	8,380,386	8,470,540	6,693,069	96,839,448

TABLE 8-A **COST AND FINANCIAL STATEMENT**

See Section In Text	Project	Funding	FY-00	FY-01	FY-02	FY-03	Total to Sep 30, 2003
							105,928,401

1. Includes $194,497 for previous projects.
2. Includes $134,789 for previous projects. Does not include $35,000 appropriated but unexpended of contributed funds in FY's 86 and 87.
3. Includes $643,456 for previous projects and $97,521 expended from Public Works Funds for existing project. Does not include $10,000 contributed funds.
4. Includes $54,414 for previous projects, $4,995 expended from Public Works Funds for existing project, and $2,150,000 under 1983 Job Bill Act. Does not include contributed funds by Brunswick and Georgia Port Authority.
5. Includes $7,260,384 for previous projects. Does not include $46,847 for removal of sunken vessels or contributed funds.
6. Includes $298,894 for previous projects and $62,727 contributed funds.
7. Includes $93,480 for previous projects and $1,634,562 from Public Works Fund.
8. Does not include $61,856 contributed funds.
9. Does not include $395,634 accelerated Public Works Funds. Includes $4,448,613 appropriated under Code 710. Also includes $1,000,000 expended under the 1983 Job Bill Act.
10. Includes $576,665 under special recreation use fees and $736,000 under the 1983 Job Bill Act.
11. Includes $17,515,000 appropriated for construction of 5th Unit of which $17,469,002 has been expended.
12. Does not include $276,200 accelerated Public Works Funds. Includes $4,861,000 appropriated under Code 710 of which $4,851,306 has been expended and $545,000 expended under the 1983 Job Bill Act.
13. Includes $797,558 expended for special recreation use fees.

TABLE 8-B **AUTHORIZING LEGISLATION**

1.		ATLANTIC INTRACOASTAL WATERWAY BETWEEN NORFOLK, VA, AND ST. JOHNS RIVER, FL (SAVANNAH DISTRICT)	
	Jun 3, 1896	Section from Beaufort, SC, to Savannah, GA Route No. 2 adopted.	HD295, 53d Cong., 3d sess.
	Mar 3, 1899	Route No. 1 adopted.	HD295, 53d, Cong., 3d sess.
	Jul 13, 1892	Section from Savannah, GA, to Fernandina, FL. Original 7-foot channel.	HD41, 52d Cong., 1st sess.
	Mar 3, 1905	Provided for Skidaway Narrows.	HD450, 58th Cong., 2d sess.
	Jul 25, 1912	Incorporated alternative routes previously improved as separate projects and the auxiliary channels.	HD1236, 60th Cong., 2d sess.
	Aug 8, 1917	Section from Cumberland Sound, GA and FL to St. Johns River, FL. Consolidation of the 3 sections	

TABLE 8-B AUTHORIZING LEGISLATION

		shown above, into "Waterway between Beaufort SC, and St. Johns River, FL."	
	Mar 2, 1919	Section from Beaufort, SC to Cumberland Sound GA and FL. Removing logs and snags from Generals Cut.	HD581, 63d Cong., 2d sess.
	Mar 2, 1919	Improving Back River to provide a channel 7 feet deep and 150 wide.	HD1391, 62d Cong., 3d sess.
	Mar 3, 1925	Channel 75 feet wide between Beaufort, SC, and Savannah, GA.	SD178, 68th Cong., 2d sess.
	Jul 3, 1930	Channel from Baileys Cut to Dover Creek.	SD43, 71st Cong., 2d sess.
	Aug 26, 1937	A 7-foot protected channel around St. Andrews Sound.	Senate Committee Print, 74th Cong., 1st sess.
	Aug 26, 1937	A 12-foot channel between Beaufort, SC, and Savannah, GA, via Beaufort River and Port Royal Sound.	Rivers and Harbors Committee, Doc 6, 75th Cong., 3d sess.
	Jun 20, 1938	A 12-foot channel between Savannah, GA, and Fernandina, FL, various cutoffs; and anchorage basin at Thunderbolt, GA.	HD618, 75th Cong., 3d sess.
	Mar 2, 1945	An alternate route 9 feet deep and 150 feet wide in that part of Frederica River, GA, not now traversed by the main route, at no additional cost to the United States.	HD114, 77th Cong., 1st sess.
	Oct 15, 1981	Main channel relocated from Frederica River to Mackay River in the vicinity of Torras Causeway. Navigation Project.	Project authorized by Chief of Engineers under the Small Navigation Project Authority, Sec. 107, PL 86-645, as amended.
2.		BRUNSWICK HARBOR, GA	
	Mar 3, 1879	Construction of East River jetty.	Annual Report, 1980, p.959.
	Mar 2, 1907	Channels in the inner and outer harbors of 30-foot depth at mean high water, with widths varying from 150 feet in Academy Creek to 400 feet across the outer bar, extension of training wall in East River and construction of two spur dikes.	HD407, 59th Cong., 1st sess.
	Mar 2, 1919	Channels 27 feet deep at mean low water over the bar and at Brunswick point; and 24 feet deep at mean low water in the inner harbor and provides for a cut from Academy Creek to Turtle River, if deemed advisable.	HD393, 64th Cong., 1st sess.
	Jul 3, 1930	A channel in Back River 230 feet deep and 150 feet wide.	SD57, 71st Cong., 2d sess.
	Jul 3, 1930	Increased Channel dimensions of the bar, Brunswick Point, East River, and Turtle River, as given in the then existing project.	SD132, 71st Cong., 2d sess.
	Jun 20, 1938	A 10-foot channel in Terry Creek.	HD690, 75th Cong., 3d sess.
	May 17, 1950	Increased channel dimensions of the bar, St. Simons Sound, Brunswick River, East River, and Turtle River, as given in the existing project.	HD110, 81st Cong., 1st sess.
	Oct 22, 1976	Provides for Phase I AE&D studies for deepening portions of existing harbor (East River and Entrance Channel) and for provision of a navigation channel to Colonels Island.	Report of Chief of Engineers dated Aug. 18, 1976.
	Jul 14, 1981	Enlargement of the maneuvering area of the entrance to East River and dredging Brunswick and Turtle Rivers to obtain depths authorized by the Rivers and Harbors Act of May 17, 1950.	HD177, 97th Cong., 1st sess.
	Jul 13, 1983	Enlargement of the East River Turning Basin to a length of 1,000 feet and a width of 750 feet.	PL 98-360
	Oct 17, 1986	Incorporated Georgia Port Authority's 30 foot deep	HR6, 99th Cong., 2d sess., Sec-

TABLE 8-B AUTHORIZING LEGISLATION

		by 300 foot wide by 8000 foot channel in South Brunswick River serving Colonel's Island into Brunswick Harbor Navigation Project. A six foot deepening in the inner harbor from 30 to 36 feet and the bar channel from 32 to 38 feet, construct a new turning basin in Upper East River, and widen inner harbor to 400 feet. Construct a 10 acre migratory bird nesting island as a beneficial use of dredged material and a 1300 foot bend widener for safe ship handling.	tion 846 PL 108-07 WRDA 99
3.		LOWER SAVANNAH RIVER BASIN, GA & SC	
	PL-104-303 Water Resources Development Act of 1996, Oct 12, 1996	Project for the environmental restoration of the Lower Savannah River Basin; modification to cut off Bend No. 3 and improve the mouths of Bear Creek and Mill Creek.	HD105-173, 105th Congress, 2nd Session, Jan 27, 1998
4.		SAVANNAH HARBOR, GA	
	Mar 2, 1907	Tentative provisions for a 26-foot channel from the Quarantine Station to the Seaboard Air Line Railway Bridge.	HD181, 59th Cong., 1st sess.
	Jun 25, 1910	Definite provision for the 26-foot channel.	
	Jul 25, 1912	A 21-foot channel from the Seaboard Air Line Railway Bridge to the foot of Kings Island.	HD563, 62d, Cong., 2d sess.
	Aug 8, 1917	A 30-foot depth from the sea to the Quarantine Station.	HD1471, 64th Cong., 2d sess.
	Jan 21, 1927	A 21-foot channel above Kings Island.	HD261,69th Cong., 1st sess.
	Jan 21, 1927	Channel 30 feet deep, with general width 50 feet, from the ocean to the Quarantine Station, thence 26 feet deep, general width 400 feet, to the Seaboard Air Line Rho. Bridge, thence 21 feet deep and 300 feet wide to Kings Island. Widening at West Broad and Barnard Streets; anchorage basin; mooring dolphins; regulating dam across South Channel; relocation of the Inland Waterway; dredging Drakes Cut to 13 feet; widening to 525 ft. at Kings Island; extension of training walls, revetments, and jetties. Consolidation of projects relating to Savannah Harbor.	HD262,69th Cong., 1st sess.
	Jul 3, 1930	Channel 26 feet deep and 300 feet wide from the Seaboard Air Line Rho. Bridge to the foot of Kings Island.	SD39, 71st Cong., 1st sess.
	Aug 30, 1935	Authorized the 30-foot project and eliminated from the project (a) the relating dam across South Channel; (b) the relocation of the Inland waterway; and (c) the further extension of training walls, revetments, and jetties.	HD276, 73d Cong., 2d sess.
	Mar 2, 1945	Deepening the channel and turning basin above the Seaboard Air Line Rho. Bridge from 26 to 30 feet and widening the channel opposite the Atlantic Coast Line Terminals to a maximum of 550 feet for a length of 5,000 feet.	HD283, 76th Cong., 1st sess.
	Nov 7, 1945	Deepening the channels to 36 feet deep and 500 feet wide across the ocean bar; 34 feet deep and generally 400 feet wide increased to 550 feet opposite	HD227, 79th Cong., 1st sess.

TABLE 8-B AUTHORIZING LEGISLATION

	the Atlantic Coast Line Terminals, with a turning basin 34 feet deep at the Mexican Petroleum Corp. Refinery; and with such modifications thereof as the Secretary of War and the Chief of Engineers may consider desirable.	
Jul 24, 1946	Extending channel 30 feet deep, 200 feet wide upstream from Atlantic Creosoting Terminal to a point 1,500 feet below the Atlantic Coastal Highway Bridge, with turning basin 30 feet deep at upper end.	HD678, 79th Cong., 2d sess.
Sep 3, 1954	Deepening the channel to 34 feet and widening to 400 feet from the upper end of the presently authorized 34-foot channel in the vicinity of the American Oil Company Refinery wharf, to the Savannah Sugar Refinery Corp. with a turning basin at the upper end of the proposed improvement made by widening the channel to 600 feet for a length of 700 feet and providing approaches.	HD110, 83d Cong., 1st sess.
Oct 23, 1962	Enlargement of turning basin near Kings Island to a width of 900 feet and a length of 1,000 feet, with suitable approaches, at a depth of 34 feet.	SD115, 87th Cong., 1st sess.
Oct 27, 1965	Deepening the bar channel from 36 feet to 40 feet, the channel between the bar channel and Garden City Terminal from 34 feet to 38 feet, and the channel from the Garden City Terminal to the vicinity of the Savannah Sugar Refining Corp., from 30 feet to 36 feet; widening the bar channel from 500 feet to 600 feet, the channel between Fort Pulaski and the Atlantic Coast Line Terminal from 400 feet to 500 feet, and the channel between Garden City Terminal and the Savannah Sugar Refinery Corp., from 200 feet to 400 feet; providing necessary wideners of the bends; constructing a new turning basin 900 feet wide by 1,000 feet long by 34 feet deep opposite the Atlantic Coast Line Terminals; and enlargement of existing turning basin at the American Oil Company Terminal from 600 feet wide by 600 feet long to 900 feet wide by 1,000 feet long.	HD226, 89th Cong., 1st sess.
Oct 27, 1965	Providing sediment control works consisting of tide gate structure across Back River; sediment basin 40 feet deep, 600 feet wide about 2 miles long, with entrance channel 38 to 40 feet deep and 300 feet wide; control works and canals for supplying fresh water to Savannah National Wildlife Refuge; and facilities to mitigate damages to presently improved areas other than refuge lands.	HD223, 89th Cong., 1st sess.
SPWC Resolution Jun 15, 1976 and HPWC, Jun 9, 1976 under authority of Sec. 201, Flood Control Act of 1965	Provided for modification of the existing project to include (1) incorporation of the LASH Turning Basin as an element of the existing Federal navigation project for maintenance purposes, (2) enlargement of Kings Island Turning Basin to 1,500 feet by 38 feet.	HD94-520, 94th Cong. dated June 8, 1976.
Jul 16,1984	Construction of three new work curve wideners in the inner harbor channel. Curve Widener #1 is be-	PL 98-360

TABLE 8-B		AUTHORIZING LEGISLATION	
		tween mile 11.1 and 11.9. Curve widener #2 is between mile 13.2 and 13.8 and curve widener #3 is between mile 14.0 and 14.8. The Wideners are located on the north side of the channel.	
	Oct 17, 1986	Savannah Harbor Widening as described in Report of Chief of Engineers date Dec. 19, 1978. Widen channel from 400 feet to 500 feet between Kings Island turning Basin and Fig Island Turning Basin. Allows planning, engineering and design to remove drift and debris as part of operations and maintenance.	HD6, 99th Cong., 2d sess. Dated Oct. 17, 1986, Section 201 Section 867
	Oct 31, 1992	Savannah Harbor Deepening deepened harbor from -38 feet to -42 feet mlw in Inner Harbor and from -40 feet to -44 feet mlw in the Bar Channel for a total of 31 miles of harbor improvements.	WRDA 1992
	Aug 17,1999	Savannah Harbor Deepening conditional approval for –42 feet to –48 feet mlw in the Inner Harbor	WRDA 1999
5.		SAVANNAH RIVER BELOW AUGUSTA, GA	
	Sep 13, 1891 Jun 25, 1910 Jul 3, 1930 Aug 30, 1935 Aug 26, 1937 May 17, 1950	For a 5-foot channel Special improvement by bank protection work of 20 to 25 miles of the river immediately below Augusta. The present 6-foot channel project and Lock and Dam, GA. Provision made for locating the lock and dam at New Savannah Bluff. Conditions of local cooperation modified. Provides for a 9-foot channel.	HD255, 51st Cong., 2d sess. HD962, 60th Cong., 1st sess. HD101, 70th Cong., 1st sess. Senate Committee Print, 73d Cong., 2d sess. Rivers and Harbors Com., Doc. 39, 75th Cong., 1st sess. SD6, 81st Cong., 1st sess.
9.		TYBEE ISLAND, GA	
	SPWC Resolution Jun 22, 1971 and HPWC, Jun 23, 1972 under authority of Sec. 201, Flood Control Act of 1965	Project will provide for beach erosion control, consisting of beach restoration, groin nourishment.	HD105, 92d Cong.
	Oct 17, 1986	Extends authority for renourishment with Federal participation from 15 to 50 years.	HR6, 99th Cong., 2d sess. Dated Oct. 17, 1986, Section 867
	PL-104-303 Water Resources Development Act of 1996, Oct 12,	Sect 301(b)(4) provided for inclusion of that portion of Tybee Island located south of the existing terminal groin, including the East Bank of Tybee Creek up to Horse Pen Creek.	WRDA 1996
	1996	Sect 506(a)(4) extended periodic nourishment for a period of 50 years beginning on the date of initiation of construction.	WRDA 1996
17.		J. STROM THURMOND DAM AND LAKE, GA&SC	
	Flood Control Act	Approved the general plan for the comprehensive	HD657, 78th Cong., 2d sess.

TABLE 8-B **AUTHORIZING LEGISLATION**

	of Dec 22, 1944	development of the Savannah River Basin and pro vided for construction of the Project.	
	Oct 17, 1986 Jan 1988	Recreation and fish and wildlife added as name changed. (Formerly Clarks Hill Lake.)	HR6, 99th Cong., 2d sess. Section 864, HJR 376
18.		HARTWELL LAKE, GA AND SC	
	Flood Control Act of May 17, 1950	Provided for construction of Hartwell Project.	HD657, 78th Cong., 2d sess. PL516, 82st Cong., 2d sess.
	Flood Control Act of Jul 3, 1958	Provided for the completion of the Hartwell Project.	PL85-500, 87th Cong., 2d sess.
	Water Resources Development Act of 1976	Provides for installation of 5th unit.	PL94-587, Sec. 182b., 85th Cong.
19.	Flood Control Acts of 1944, 1950, 1958, and Water Resources Development Act of 1986	HARTWELL LAKE/CLEMSON UPPER AND LOWER DIVERSION DAMS, GA AND SC Seismic remediation.	HD657, 78th Cong., 2d sess. PL516, 81st Cong., 2d sess. Sect 1203; WRDA 1986
20.	Flood Control Act of Nov 7, 1966	RICHARD B. RUSSELL DAM AND LAKE, GA & SC Provided for construction of the Trotters Shoals Project.	SD52, 89th Cong., 1st sess.
	Water Resources Development Act of 1986	Authorized mitigation plan.	HR6, 99th Cong., 2d sess. dated Oct. 17, 1986, Section 601

TABLE 8-C **OTHER AUTHORIZED NAVIGATION PROJECTS**
(See Section 7 in text)

Project	Status	For Last Full Report See Annual Report for	Cost to September 30, 2003	
			Construction	Operation and Maintenance
Bellville Point, GA	Completed	1986	599,379	----
Cedar Point, GA	Completed	1982	656,233	----
Darien Harbor, GA	Completed	1975	199,723	185,433
Fancy Bluff Creek, GA 1	Completed	1935	8,000	7,200
St. Mary's River, GA and FL, and North River, GA	Completed	1951	15,688	69,936
Sapelo Harbor, GA 2, 3	Completed	1929	17,906	19,594
Satilla River, GA 1, 5, 6	Completed	1951	9,452	57,172
Savannah River above Augusta, GA 2, 3, 4	See Notes	1929	69,600	85,944
Savannah River at Augusta, GA 2, 3, 5	See Notes	1929	200,556	17,444

1. Channel adequate for commerce.
2. Project recommended for abandonment in HD 467, 69th Cong., 1st session.
3. No commerce reported.
4. About 84 percent completed. Owing to construction of two power dams which submerged much of the work under the present and former projects, this improvement cannot be completed as originally planned.
5. Excludes $185,000 contributed funds ($172,151 for construction and $12,849 for operation and maintenance).
6. Water Resources Development Act of 1986 authorized demonstration project on the Umbrella Creek - Dover Creek for the purpose of reducing shoaling. Monitor for 10 years, develop a hydrodynamic model.

TABLE 8-D **OTHER AUTHORIZED FLOOD CONTROL PROJECTS**
(See Section 13 in text)

Project	Status	For Last Full Report See Annual Report for	Cost to September 30, 2003	
			Construction	Operation and Maintenance
Augusta, Savannah River, GA	Completed	1941	$ 643,016	$38,242
Curry Creek Dam and Lake, GA (1)	See Note	1974	----	----
Dunn Branch, Woodbine, Camden County, GA	Completed	1977	132,640	5,219
Macon, GA	Completed	1955	380,043	38,243
Oates Creek, GA (2)	Completed	1993	12,565,000	----
Peacock Creek, Liberty County, GA	Completed	1976	582,163	5,219

1. Feasibility report completed. Project not authorized for construction.
2. Authorized by HR 6, Water Resource Development Act of 1986 dated October 17, 1986. First Federal cost of $9,600,000 and non-federal cost of $4,100,000.

TABLE 8-E

SAVANNAH RIVER BASIN, GA AND SC
DAMS AND LAKES
(See Section 19, 20, & 21 in text)

Name	River	Estimated Cost Federal	Non-Federal	Total
J. Strom Thurmond Dam & Lake, GA and SC	Savannah	79,156,000(3)		79,156,000(1,3)
Hartwell Dam & Lake, GA and SC	Savannah	89,240,000		89,240,000(2)
Hartwell Lake/Clemson Upper and Lower Diversion Dams, GA and SC	Savannah	8,741,000		8,741,000
Richard B. Russell Dam & Lake, GA and SC(4)(5)	Savannah	626,000,000		626,000,000(5)

1. Final Cost. (Excludes $127,000 for preauthorization study.)
2. Approved August 1963. (Excludes $73,000 for preauthorization study.)
3. Approved July 1954.
4. Excludes Code 710 funds.
5. Richard B. Russell Dam and Lake (formerly Trotters Shoals Lake) replaced Goat Island, GA and SC and Middleton Shoals, GA and SC.

JACKSONVILLE, FL DISTRICT*

With the exception of a small area in the north-eastern section of Florida, this district comprises a portion of south-central Georgia and all of peninsular Florida, embracing the watersheds tributary to the Atlantic Ocean and the Gulf of Mexico from, and including the harbor at Fernandina, Florida, to and including the Aucilla River. It also includes Puerto Rico and the U.S. Virgin Islands.

IMPROVEMENTS

Navigation

Navigation (cont.)

Beach Erosion Control

Flood Control

*All cost and financial statements for projects are listed at the end of this chapter. All other tables are referenced in text and also appear at the end of the chapter.

Navigation

1. AQUATIC PLANT CONTROL (R&H ACT OF 1965)

Location. Navigable waters, tributary streams, connecting channels, and other allied waters in Florida.

Existing project. The authorized project provides for control and progressive eradication of water hyacinth, alligator weed, Eurasian water-milfoil, and other noxious aquatic plant growths from navigable waters, tributary streams, connecting channels, and other allied waters of the United States, in combined interest of navigation, flood control, drainage, agriculture, fish and wildlife conservation, public health, and related purposes, including continued research for development of most effective and economical control measures in cooperation with other Federal and State agencies in accordance with report of Chief of Engineers, H 251/89/1. The Water Resource Development Act of 1986 amended the River and Harbor Act of 1965 requiring the local sponsor to share 50 percent of planning costs and 50 percent of research costs that are local in nature. The cost of research that is regional or national in scope shall be borne fully by the United States.

Local cooperation. Florida Department of Natural Resources holds the United States free from damages that may occur from operations performed in connection with this project and contributes 50 percent of cost of operations. Compliance with requirements of local cooperation is on schedule.

Operations and results during fiscal year. New work: $2,146.

Condition at end of fiscal year. Cost share operation by the Corps and the State of Florida are on hold due to lack of funding. Water hyacinths within Florida are under maintenance control. Hydrilla is continuing to spread throughout the state and is causing major problems in some areas.

2. ARECIBO HARBOR, PR

Location. The harbor is located on the north shore of Puerto Rico about 40 miles west of San Juan Harbor. (See NOAA Nautical Chart No. 25668.)

Previous project. For details see page 504 of 1956 Annual Report.

Existing project. The project provides for a channel 25 feet deep by 400 feet wide, with flare at entrance and widening at inner end to form a maneuvering area and a stone breakwater 1,200 feet long. Plane of reference is mean low water. Mean tidal range is 1.1 feet. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date.

Terminal facilities. A bulkhead wharf 688 by 220 feet providing deep water berthing space of approximately 500 feet and a 300 by 100-foot transit shed. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. Maintenance: $55,493.

Condition at end of fiscal year. Project was completed in 1944. Breakwater was repaired in 1952. Wave action has since caused damage.

3. ATLANTIC INTRACOASTAL WATERWAY BETWEEN NORFOLK, VA AND ST. JOHNS RIVER, FL (JACKSONVILLE DISTRICT)

Location. That part of Intracoastal Waterway between southerly limit of Fernandina Harbor, FL, at junction of Lanceford Creek and Amelia River, and St. Johns River, FL. (See NOAA Nautical Chart No. 11489.)

Previous project. For details see page 605 of 1938 Annual Report.

Existing project. Channel 12, 90 to 150 feet wide from Fernandina Harbor to St. Johns River, about 22 miles long. Plane of reference is mean low water. Mean tidal range is 6 feet at Fernandina and 3.8 feet at St. Johns River. (See Table 9-B for Authorizing Legislation.)

Existing project was authorized by River and Harbor Acts of 1913 (H 898/62/2) and 1938 (H 618/75/3).

Local cooperation. Fully complied with to date.

Terminal facilities. There is a commercial marina located at Sisters Creek. No other facilities exist along this section of the waterway and none are currently required.

Operations and results during fiscal year. Maintenance: $45.

Condition at end of fiscal year. Project was completed in 1941. Minor shoals exist throughout the project.

4. BAKERS HAULOVER INLET, FL

Location. The inlet connects the Intracoastal Waterway and the Atlantic Ocean and is located 2 miles north of Miami Beach in Dade County, Florida.

Existing project. The authorized project provides for an entrance channel 11 by 200 feet, thence 8 by 100 feet to the Intracoastal Waterway and a marina basin 8 by 200 feet. The length of the project is 1.02 miles. Plane of reference is mean low water.

Operations and results during fiscal year. None.

Condition at end of fiscal year. The initial construction of project was completed in December 1964. Shoaling at this time is restricting project depth. Maintenance dredging is necessary.

5. CANAVERAL HARBOR, FL

Location. The harbor is located on the east coast of Florida in Canaveral Bight, about 146 miles south of the entrance to Jacksonville Harbor and 69 miles north of the entrance to Fort Pierce Harbor. (See NOAA Nautical Chart Nos. 11478 and 11484.)

Existing project. The authorized project provides for a 37 foot deep entrance channel and maintenance of the 44 foot deep Navy channel in the 37 foot channel reach; and 35 foot depth turning basin; construction and operation of a sand transfer plant; relocation of the perimeter dike about 4,000 feet westward and extension of the harbor westward; south entrance jetty 1,100 feet long and the entrance jetty 1,150 feet long; a lock; a channel and turning basin 31 feet deep near the relocated dike; and a barge canal 12 by 125 feet from the turning basin to the Atlantic Intracoastal Waterway. Plane of reference is mean low water (Banana River) for barge canal. The project is about 11.5 miles long. Mean tidal range is 3.5 feet at the entrance and practically non-tidal in Banana and Indian Rivers. (See Table 9-I for Data Relative to Lock.) (See Table 9-B for Authorizing Legislation.)

Estimated project cost for Canaveral Harbor Sand Transfer System is $40,958,000 Federal and $4,900,000 non-Federal.

Local cooperation. Local interests must; provide all lands, rights-of-way, spoil-disposal areas, retaining dikes, and embankments; hold United States free from damages; provide and maintain four-lane bridge and roadway subject to Federal contribution of 65.3 percent of cost of constructing bridge and 51.2 percent of constructing roadway; provide public terminal and transfer facilities; and make alterations as required in berthing facilities. For further details see Senate Document 140, 87th Congress, 2nd session. Non-Federal contribution for new work is $2,635,845.

Terminal facilities. Canaveral Harbor has 27 commercial waterfront facilities. The General Cargo Facilities consist of 1,900 feet of usable berthing space capacity of 168,000 square feet. The Oil Handling Facilities operate with 3,760 feet of usable berthing space and 1,413,000 barrels of tank storage. Available warehouse storage includes 28,000 square feet of dry storage and 2,500,000 cubic feet of cold storage. Open storage is 189 acres.

Three-cruise ship berths totaling 1,400 feet long by 34-foot depth and three 8,800 square foot cruise terminals are also located on the south side. The western cruise ship berth is equipped with a roll on/off ramp and is adjacent to 20 acres of trailer storage area.

Hoisting facilities consist of one 45-ton floating crane and crawler and mobile cranes, with capacities from 70 to 200 tons, available from local crane rental services. There are 2 waterfront marine repair facilities with the nearest dry-dock facilities located at Port Everglades and Jacksonville. Two tugs with ratings of 1,600 and 2,250 horsepower are also available. There is no rail service available at the port. The nearest rail service is the Florida East Coast Railway located 9 miles away. Facilities are considered adequate for existing commerce. (See Port Series No. 16, Rev. 1982.)

Operations and results during fiscal year. New work: Engineering and design, $738,833. Maintenance: contract dredging cost was $3,858,861. Maintenance and operation of locks and dams amounted to $1,125,400; Real Estate $21,196; Engineering and Design $429,185: Construction management $296,500.

Condition at end of fiscal year. Report for north jetty sand tightening has been completed and is under review.

6. CHANNEL FROM NAPLES TO BIG MARCO PASS, FL

Location. Naples Bay is on the southwestern side of the Florida peninsula about 35 miles south of the mouth of the Caloosahatchee River and approximately 1-mile inland and parallel to the Gulf of Mexico coastline. (See NOAA Nautical Chart No. 11430.)

Existing project. The authorized project provides for an interior channel 6 by 70 feet from Naples to Big Marco Pass; a channel 12 by 150 feet from the Gulf of Mexico to Gordon Pass, thence 10 by 100-70 feet to a 10 foot depth turning basin in the upper Naples Bay; and an 8 foot depth turning basin at the municipal yacht basin. Plane of reference is mean low water. Mean tidal range is 2.1 feet. (See Table 9-B for Authorizing Legislation.)
For further details see Annual Report of 1962.

Local cooperation. Fully complied with to date.

Terminal facilities. Four seafood-packing houses; 4 marine repair yards; a municipal pier and basin for use by recreational boats; and numerous private piers and slips for both commercial and recreational craft are available. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. Maintenance: Engineering and design cost was $41,265, Maintenance dredging $973,393, Construction management $71,702.

Condition at end of fiscal year. The project is at authorized depth. A maintenance dredging contract was awarded in September 2002 for the Gordon Pass project. Dredging of the outer portion of the project was completed in April 2003.

7. CHARLOTTE HARBOR, FL

Location. The Harbor is located on the west coast of Florida about 68 miles south of the entrance to Tampa Bay and 150 miles north of Key West. (See NOAA Nautical Chart No. 11429.)

Previous projects. For details, see page 457 of 1959 Annual Report.

Existing project. The authorized project provides for a channel 32 by 300 feet, increased to 700 feet at the bend, from the Gulf of Mexico to Port Boca Grande to and including a turning basin at 200 feet square at the municipal terminal at Punta Gorda. Plane of reference is mean low water. The project is about 29.5 miles long.

Mean tidal range is one foot at Port Boca Grande and 1.4 feet at Punta Gorda. Extreme range is about 3 feet at Port Boca Grande and 3.8 feet at Punta Gorda. Strong southwesterly winds raise water levels about 1.5 feet; strong northerly and easterly winds lower water levels about one foot. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Local cooperation is fully complied with to date.

Terminal facilities. Existing facilities consist of a phosphate wharf at Port Boca Grande and a municipal earth fill pier about 850 feet long at Punta Gorda, both open to the public. Railway connections are available at Port Boca Grande, and highway and railway connections are available at Punta Gorda.

Operations and results during fiscal year. Engineering and Design -$21,324.

Condition at end of fiscal year. The project was completed in 1959, and was dredged for maintenance in June 1998. The Florida Power and Light Company no longer has a requirement for bunker fuel oil to be delivered into Charlotte Harbor. Therefore, there is no future maintenance scheduled for the project.

8. EAU GALLIE HARBOR, FL

Location. The Harbor is located on Indian River about midway of the State of Florida, 176 miles south of Jacksonville Harbor and 174 miles north of Miami Harbor.

Existing project. The authorized project provides for a channel 8 by 100 feet from Indian River to and including a 300 by 600-foot turning basin in Eau Gallie. The project is about 2,700 feet long. Plane of reference is mean low water. The harbor is almost non-tidal.

Local cooperation. Fully complied with to date.

Terminal facilities. A privately owned boatyard in Eau Gallie Harbor provides more than 600 feet of docking space used chiefly by pleasure boats. There are also 2 marine railways and repair and storage facilities

available. The facilities are considered adequate for the present needs of navigation.

Operations and results during fiscal year. None. No future maintenance is scheduled for this project.

Condition at end of fiscal year. The project was completed in 1939. In December 1982, the controlling depth of the channel was 5 feet.

9. FERNANDINA HARBOR, FL

Location. Entrance to the harbor is located on the northeast coast of Florida about 95 miles south of the entrance to Savannah Harbor, Georgia, and 22 miles north of the entrance to Jacksonville Harbor, Florida. (See NOAA Nautical Chart No. 11503.)

Existing project. The authorized project provides for a 32 foot depth channel (maximum channel in active status: 28 feet) generally 300-400 feet wide from deep water in the ocean to the junction of Lanceford Creek with Amelia River; an 800 foot wide turning basin at the first bend below Lanceford Creek; and 2 jetties, 19,150 and 11,200 feet long. The project is 7 miles long. Plane of reference is mean low water. Mean tidal range is 5.8 feet on the bar and 6 feet in the inner harbor. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date. Non-Federal contribution for new work was $935,000.

Terminal facilities. There are 2 large wharves operated by industrial plants; 12 wharves serving fishing boats, recreational craft, and other vessels; 3 oil handling wharves with pipelines; and a Municipal Marina and Sportsman's Wharf with public facilities for small craft. Total berthing space is approximately 4,065 feet. Most terminals are served by rail, and all have highway access. Facilities are considered adequate for existing commerce. (See Port Series No. 16 (Part 2), 1964.)

Operations and results during fiscal year. New work: Maintenance contract dredging, entrance channel $1,116,209. Engineering and design and construction management costs were $666,504 and $101,050 respectively.

Condition at end of fiscal year. The active portion of the existing project is complete. Jetties are in poor condition and are badly in need of repair. Remaining work is to deepen the inner harbor channel and turning basin to 32 feet when and if the presently inactive 1950 authorization is reactivated. The entrance channel has been deepened to 46 feet for the Kings Bay project. Authorized depths were restored as of March 1991.

10. FORT MYERS BEACH, FL

Location. Fort Myers Beach is on Estero Island near the mouth of the Caloosahatchee River, about 20 miles below Fort Myers and 110 miles south of Tampa, Florida. (See NOAA Nautical Chart No. 11427.)

Existing project. The authorized project provides for a channel 12 by 150 feet from that depth in San Carlos Bay into Matanzas Pass, thence 11 by 125 feet in Matanzas Pass to and including a turning basin 2,000 feet upstream from the upper shrimp terminals. Plane of reference is mean low water. Project is 2.5 miles long.

Mean tidal range is 1.7 feet. Spring range is about 2.3 feet. Strong northerly winds lower the water surface 1 to 2 feet; strong southerly winds have an opposite effect. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date.

Terminal facilities. There are 3 shrimp-packing houses and several fish-packing houses, 2 marine railways, a fuel terminal and an ice manufacturing plant in the area. There are several commercial facilities for servicing shrimp boats. Recreational craft facilities include 9 marinas, a boat motor testing laboratory which is closed, and numerous privately owned piers and wharves. All terminals have highway access. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. $178.

Condition at end of fiscal year. The project is authorized depths.

11. FORT PIERCE HARBOR, FL

Location. On east coast of Florida, about 218 miles south of entrance to St. Johns River and about 124 miles north of entrance to Miami Harbor. (See NOAA Nautical Chart No. 11475.)

Existing project. A channel 350 feet wide at the 27-foot contour in the ocean, tapering to a width of 200 feet at Station 100+00, thence 200 feet wide to Sta. 30+00, and thence flaring to a turning basin 900 feet wide. Entrance channel is 27 feet deep to Sta. 130+00 and thence 25 feet deep to and including the turning basin. Project includes the maintenance of two jetties

and shore revetments at the inlet. Length of project is about 3.5 miles.
Plan of improvement consists of enlarging the existing entrance channel to 400 feet wide and 30 feet deep, the interior channel to 250 feet wide and 28 feet deep, the existing turning basin to 1,100 feet square and 28 feet deep, and providing an access channel 1,250 feet long, 250 feet wide and 28 feet deep north of the main turning basin.

Mean tidal range is 2.6 feet at the entrance and 0.7 feet at terminals. (See Table 9-B for Authorizing Legislation.) For further details see 1961 Annual Report.

Local cooperation. Fully complied with to date. Non-Federal contribution for new work was $2,503,387. A 25% contribution and an additional 10% reimbursement over 30 years from locals are required.

Terminal facilities. Two earth-filled piers forming a slip 200 by 300 feet, with bulkhead wharf at inner end, affording berthing space of about 1,653 feet. The south pier and bulkhead wharf are municipally owned. Facilities also include a cooling plant, a warehouse and a fruit-packing house. Railway and both piers serve the north pier by highway connections. North of the turning basin local interests have provided deep-draft berthing and pier facilities. Also available is a bulkhead wharf with a depth of 25 feet with ample room for open storage and with tank storage for petroleum in the rear. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. Maintenance: engineering and design, $287,759.

Condition at end of fiscal year. Mitigation contract completed in May 1996. No further work is scheduled.

12. HORSESHOE COVE, FL

Location. On the gulf coast of Florida about 18 miles southeast of the mouth of the Suwannee River.

Existing project. Channel 6 feet deep by 75 feet wide from that depth in the Gulf of Mexico to and including an irregular-shaped basin of like depth at the village of Horseshoe, Fl. Project is 1.75 miles long. Plane of reference is mean low water.

Local cooperation. Fully complied with.

Terminal facilities. Three marine-ways about 300 feet of privately owned piers and wharves, and a public wharf about 200 feet long. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. Maintenance: Construction management cost was $100.

Condition at end of fiscal year. Project was complete in 1959.

13. INTRACOASTAL WATERWAY, CALOOSAHATCHEE RIVER TO ANCLOTE RIVER, FL

Location. The Waterway extends from the mouth of the Caloosahatchee River at Punta Rassa, Florida, to the mouth of Anclote River, Florida, following in general an almost continuous series of protected inside waterways along the gulf coast of Florida. (See NOAA Nautical Chart Nos. 11411, 11425 and 11427.)

Previous projects. For details see page 767 of 1945 Annual Report.

Existing project. The authorized project provides for a channel 9 by 100 feet from Caloosahatchee River to Anclote River; deepening the existing channel at Casey's Pass to 9 feet; a channel 6 by 80 feet (Cats Point Channel) along the southeastern side of Boca Ciega Bay past Frenchman Creek and Gulfport; maintenance of bulkheads, revetments, and two jetties built at Casey's Pass under previous project; and improvement and maintenance of Sunshine Skyway Channel. Plane of reference is mean low water. The project includes about 160 miles of channels.

Mean ranges of tide are 1.7 feet at Punta Rassa, 1 foot at Port Boca Grande, 1.4 feet in Tampa Bay at Anna Maria, and 2 feet at entrance to Anclote River. Extreme ranges are about 4.5 feet at Punta Rassa, about 3 to 4 feet between Port Boca Grande and Corey Causeway over Boca Ciega Bay, and about 5.5 feet at entrance to Anclote River. Southerly winds over the area generally raise water levels by 1 to 1.5 feet; northerly winds lower water levels by 1 to 2 feet. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date.

Terminal facilities. Existing facilities include one municipal concrete pier, one railway pier, one freight wharf, one marginal wharf 500 feet long on Terminal

Island, and 11 privately owned landings, all at Sarasota. Municipal pier and freight wharf are open to the public. All piers have highway connections. There are 6 wharves along Boca Ciega Bay and a number of small privately owned piers and wharves at various points along waterway for use by commercial fishing boats and recreational craft. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. $5,063.

Condition at end of fiscal year. Existing project is complete. Shoaling exists in northern Pinellas County around Longboat Pass and Venice Inlet and just south of the Sunshine Skyway Bridge.

14. INTRACOASTAL WATERWAY, JACKSONVILLE TO MIAMI, FL

Location. The Waterway extends from Jacksonville to Miami, Florida, following the St. Johns River to the mouth of Pablo Creek and thence following in general an almost continuous series of protected inside waterways along the Atlantic coast of Florida to Miami. (See NOAA Nautical Chart Nos. 11489, 11485, 11472 and 11467.)

Previous projects. For details, see pages 618-619 of 1938 Annual Report.

Existing project. The authorized project provides for a channel 12 by 125 feet from Jacksonville to Miami, modified by Chief of Engineer's report of July 22, 1960; side channels at Sebastian and Daytona Beach and turning basins at Sebastian and Vero Beach, all to an 8 foot depth, and operation and maintenance of Palm Valley highway bridge. Project is 370 miles long, including 21 miles in Jacksonville Harbor. Mean range of tide is 3.8 feet at St. Johns River, 0.7 foot in Indian River at Fort Pierce, 1.8 feet in Lake Worth at Port of Palm Beach terminals, 2.3 feet at the Port Everglades terminals, and 2 feet in Biscayne Bay. The extreme range is about 7 feet at St. Johns River, 1.5 feet at Fort Pierce, and 3 feet in Biscayne Bay. Plane of reference is mean low water. Tidal effect is imperceptible at points along waterway distant from inlets. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date.

Terminal facilities. There are a number of privately owned piers, wharves, and landings at various points along waterway. Terminals with railway connections are available at Jacksonville, Fort Pierce, West Palm Beach, Port Everglades, and Miami. Municipal piers or wharves have been constructed at Titusville, Cocoa, Melbourne, and Vero Beach for handling general freight and at St. Augustine, Daytona Beach, New Smyrna Beach, Eau Gallie, West Palm Beach, Delray Beach, Fort Lauderdale, and Miami for use of recreational craft. Yacht basins, open to the public, have been provided at Jacksonville Beach, Daytona Beach, Titusville, Eau Gallie, Vero Beach, Fort Pierce, West Palm Beach, Fort Lauderdale, Hollywood, and Miami. Facilities are considered adequate for existing commerce. (For further details on facilities at Jacksonville, see Port Series No. 15, 1969, and at Palm Beach, Port Everglades, and Miami, see Port Series No. 16, Revised 1972.)

Operations and results during fiscal year. Maintenance: Real estate management $111,691; Contract dredging, various segments, $3,000,000; bridge operations and maintenance -$41,473, Engineering and design, and contract management costs were $556,279 and $77,515, respectively.

Condition at end of fiscal year. The existing project as modified by the Chief of Engineers is complete. (Construction of the channel and turning basin at Sebastian, Florida, was deauthorized by WRDA of 1988, P.L. 100-676.) (See Table 9-A for total project costs.) Maintenance dredging in the vicinity of Stuart, Fl. Required to provide project depths. Engineering and Design efforts accomplished for maintenance dredging of IWW in vicinity of Jupiter, Fl.; New Smyrna Beach, Fl.; Matanzas Inlet, Fl.; Palm Valley, Fl.; and Nassau Sound, Fl.

15. JACKSONVILLE HARBOR, FL

Location. The authorized project comprises the lower 24.9 miles of St. Johns River, which empties into the Atlantic Ocean near the northeasterly corner of the Florida peninsula. (See NOAA Nautical Chart No. 11491.)

Previous projects. For details, see page 607 of Annual Report, 1938.

Existing project. The authorized project provides for a channel 38 feet deep by 400-1,200 feet wide from ocean to mile 20 via Dame Point-Fulton Cutoff, thence 34 feet to Commodore Point, and thence 30 feet deep to the FEC railway bridge at Jacksonville, including a 30 foot channel in Arlington cut in the old Dames Point-Fulton channel; maintenance of the existing 42 and 40 foot depth entrance channel; widening of channel by 100 feet near mile 5 and by 200 feet near

mile 7; maintenance of jetties at channel entrance; construction of training walls and revetments; a navigation and floodway channel 26 by 200 feet along south side of Commodore Point; on approach and mooring basin 20 feet deep, 1,300 feet long at 20 foot depth contour and 600 feet long at pier head line near Naval Reserve Armory in south Jacksonville; a depth of 24 feet between that depth contour and the pier head line from Hogan Creek to the foot of Laura Street; and a depth of 28 feet to within 60 feet of pier head line between foot of Laura Street and St. Elmo W. Acosta (formerly Upper State) bridge. Length of project is about 26.8 miles. In addition the Navy has provided funds for a deeper Jacksonville Harbor entrance channel 42 feet deep and 800 feet long, intersecting with the Navy's Mayport entrance channel to the Mayport turning basin; also an extension of the existing project to provide 38 foot depth for the Navy fuel depot, at Drummond Creek.

Mean tidal range is 5.3 feet on the bar, 4.9 feet at Mayport, 2.6 feet at Dame Point, and 1.1 feet at Jacksonville. The extreme range varies from about 9 feet on the bar to about 1.5 feet at Jacksonville. Strong northeasterly winds raise the water level about 2 feet at Mayport and Jacksonville. Strong southwesterly winds lower the water about 1.5 feet at Mayport and one foot at Jacksonville. (See Table 9-B for Authorizing Legislation.)

Estimated cost of new work $10,100,000 Federal and $19,700,000 non-Federal.

Local cooperation. Local interests have fully complied with requirements of local cooperation for work performed to date. For work authorized by the 1965 River and Harbor Act, local interests were required to contribute 2.6 percent of the contract price plus supervision and administration for work provided by the Corps; provide all lands and rights-of-way; save the United States free from damages; and provide and maintain public terminal and transfer facilities. Assurances of local cooperation for this work were accepted February 11, 1966. Non-Federal contribution for new work was $1,135,669.

Terminal facilities. Jacksonville Harbor has 84 waterfront facilities. Available at the General Cargo Facilities are 11,140 feet of usable berthing space and 12 transit sheds with a total storage space of 1,009,800 square feet. The Oil Handling Facilities consist of 7,843 feet of usable berthing space and 179 storage tanks providing a total of 8,478,900 barrels of tank storage. Warehouse storage at the port includes 3,266,900 square feet of dry storage and 4,071,100 cubic feet of cold storage. Available open storage is 233 acres.

Four fixed cranes with capacities from 40 to 100 tons are located at the port. Available locally are crawler and truck cranes with capacities up to 100 tons. Various phases of marine repair work are accomplished by 7 waterfront repair facilities and numerous other companies located off water. Dry-dock facilities consist of 6 floating dry-docks with capacities from 800 to 33,000 tons. Floating equipment includes 25 tugs with up to 3,300 horsepower and 16 tank barges with capacities up to 20,700 barrels. Three major railroads furnish rail service from port docks to all points outside of Jacksonville. Facilities are considered adequate for existing commerce (See Port Series No. 15, Rev. 1978.) Navigation cost, $7,700,190; engineering and design, $617,794; and construction management, $241,844.

Operations and results during fiscal year. New Work: Navigation contract $8,169,208; Engineering and design $836,164; Contract management $235,350. Maintenance: Contract dredging cost: Channels $3,309,737 and terminal channel $1,659,250, Engineering and design, and construction management costs were $453,704 and $243,397, respectively.

Condition at end of fiscal year. PED was completed in July 2000. Contract I to deepen the west Blount Island channel from 30 to 38 feet was awarded in July 2001. Contract II to deepen the main ship channel from the ocean up to river mile 14 from 38 to 40 feet was awarded in March 2002. A GRR to deepen the remainder will be submitted for the next WRDA 2002.

16. JACKSONVILLE HARBOR (MILL COVE), FL

Location. The authorized Mill Cove project comprises a 6 square mile body of shallow water on the St. Johns River approximately 10 miles from the Atlantic Ocean near the northeasterly corner of the Florida peninsula. (See NOAA Nautical Chart No. 11491.)

Previous project. None.

Existing project. The authorized project provides improved flow and circulation through Mill Cove to eliminate further shoaling. This large shallow area averages about 2 to 4 feet deep, is about 5.5 miles long, and varies from 0.5 to 2.0 miles wide. It is situated along the St. Johns River near the Dame Point-Fulton Cutoff portion of the Jacksonville Harbor navigation project. The Mill Cove project includes

dredging a 650 foot by 3,600 foot flow channel at the west end to -12 feet MSL; enlarging the weir opening at the eastern end to 1,300 feet wide and -12 feet MSL; and installing flow diversion features at the west and east ends of the cove. Mean tidal range is 4.9 feet at entrance, 4.5 feet at Mayport, 3.0 feet at Dame Point, and 1.2 feet at Jacksonville. Strong northeasterly winds raise the water level about 2 feet at Mayport and Jacksonville. Strong southwesterly winds lower the water about 1.5 feet at Mayport and 1 foot at Jacksonville (See Table 9-B for Authorizing Legislation.)

Local cooperation. In conformance with Section 221, Public Law 91-611, and prior to commencement of construction, the Jacksonville Port Authority, as local sponsor, must provide written agreement to the following local cooperation requirements: provide without cost to the United States all lands, easements, and rights-of-way required for construction and subsequent maintenance of the project; hold and save the United States free from damages that result due to construction and maintenance other than damages due to the fault or negligence of the United States or its contractors; accomplish without cost to the United States such utility and other relocations or alterations as necessary for construction.

Terminal facilities. None.

Operations and results during fiscal year. New work: Engineering and design costs were $8,458.

Condition at end of fiscal year. Project completed November 2002.

17. JOHNS PASS, FL

Location. A natural inlet on the west coast of Florida connecting Boca Ciega Bay with Gulf of Mexico. The pass is located about 8 miles northwest of lower Tampa Bay directly across Boca Ciega Bay from St. Petersburg, Florida. (See NOAA Nautical Chart No. 11411.)

Existing project. Channel 10 by 150 feet in the Gulf, thence 8 by 100 feet inside pass, and 6 by 100 feet to the Intracoastal Waterway, and suitable protective measures over a frontage of approximately 1,000 linear feet of shore along the north end of Treasure Island. Plane of reference is mean low water. Mean range of tide is 1.5 feet. Project is about 2.6 miles long.
Project was authorized December 2, 1964 by the Chief of Engineers under Section 107 of the 1960 River and Harbor Act and by Section 110 of the 1966 River and Harbor Act.

Local cooperation. Fully complied with to date.

Terminal facilities. Only small marinas and repair yards for recreational craft are in the general vicinity. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. $237.

Condition at end of fiscal year. Project was completed in 1968. Authorized project depths were restored as of June 2002.

18. LONGBOAT PASS, FL

Location. Longboat Pass is located on the west coast of Florida about 11 miles northwest of Sarasota and 23 miles south of St. Petersburg. Located in Manatee County, it is one of several natural inlets connecting Sarasota Bay, a tidal estuary, with the Gulf of Mexico. (See NOAA Nautical Chart No. 11425.)

Existing project. The authorized project provides for an entrance channel 12 by 150 feet from the Gulf to Longboat Pass Bridge, thence a channel 10 by 100 feet from Longboat Pass Bridge along a north to northeasterly alignment to the Intracoastal Waterway to Cortez Bridge. The mean tidal range is 2.2 feet and the maximum tidal range is about 5 feet. Currents are predominantly tidal. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date. See 1978 Annual Report for detailed local cooperation requirements.

Terminal facilities. From Sarasota north to Tampa Bay there are about 28 small craft facilities including marinas, boat repair yards, and boat basins along the Intracoastal Waterway. Nine of them are located within 2 miles of Longboat Pass. Numerous private mooring piers and wharves also exist in the area. The marina and repair facilities appear adequate for the general boating needs of the area.

Operations and results during fiscal year. Maintenance: Maintenance dredging contract, $1.

Condition at end of fiscal year. Construction of the project is complete. Authorized project depths were restored as of May 2003. The channel depths are adequate for navigation.

19. MANATEE HARBOR, FL

Location. The project is located in Manatee County on the east side of Tampa Bay 10 miles from the Gulf of Mexico. (See NOAA Nautical Chart No. 11414.)

Existing project. The authorized project provides for maintenance of the existing 40-foot deep draft navigation channel and turning basin, which extends from Tampa Bay Channel to berthing facilities at Port Manatee. Also provide initial construction for a widener at the northwest end of the Manatee Harbor Channel and a repositioned 900 by 1300 foot turning basis adjacent to the northern berthing area to provide a larger turning basin. All material from the project will be placed on upland sites west and northeast of the port slip.

Estimated cost of new work $26,800,000 Federal and $13,300,000 non-Federal.

Local cooperation. Fully complied with to date. A 25 percent contribution and an additional 10 percent reimbursement over 30 years from locals are required. Non-Federal contribution for new work was $2,606,943.

Terminal facilities. Existing facilities at Port Manatee consist of 675 acres of port operational lands, a ship basin 1,500 feet long by 788 feet wide; and an approximately 3 mile access channel, with a design width of 400 feet, which connects with the Federally authorized Tampa Bay Channel. The Manatee project was constructed between August 1968 and February 1970. The required design depth was 40 feet, and the dredging contractor was allowed a pay over depth of 2 feet. Port Manatee also operates its own terminal railroad, which is licensed under the Interstate Commerce Commission, and publishes a switching tariff as a Class III railroad. It also maintains and operates 2 switch engines and about 30,000 feet of track, which connects with the CSX Railroad.

Operations and results during fiscal year. New Work: Navigation costs were $1,797,518; Engineering and design costs were $475,279; construction management costs were $372,607. Maintenance: Engineering and design costs were $55,861.

Condition at end of fiscal year. An updated design document and plans are currently underway for Phase II of the project, which includes the wideners and the turning basin. The GRR presents an evaluation of the South Extension Channel (to provide an additional berthing area) under current policies.

20. MAYAGUEZ HARBOR, PR

Location. The Project is on the west coast of Puerto Rico, about 110 miles by water from San Juan Harbor. (See NOAA Nautical Chart No. 25673.)

Existing project. The authorized project provides for a 30 by 1,000-foot approach channel to the deep-water terminal, decreasing to a 500-foot width opposite the westerly end of terminal, thence the same width to the easterly end of terminal. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date.

Terminal facilities. A modern deep water terminal is located in the northeast section of the harbor consisting of a bulkhead wharf about 1,270 feet long with a storage transit shed 800 by 60 feet immediately shoreward. The Puerto Rico Industrial Development Company, an agency of the Commonwealth of Puerto Rico, owns a bulkhead wharf of about 200 feet in line with the existing deep-water terminal plant located within the industrial harbor area. In addition, Bumble Bee Packing Company, Inc., owns and operates a dock of about 200 feet for docking tuna fish boats. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. None.

Condition at end of fiscal year. Project was completed in 1934.

21. MELBOURNE HARBOR, FL

Location. The project is on Indian River about midway of the State of Florida, 179 miles south of Jacksonville Harbor and 171 miles north of Miami Harbor.

Existing project. The authorized project provides for a channel 8 by 100 feet from Indian River to a 400 by 800 foot turning basin in Crane Creek. Project is about 3,150 feet long. Plane of reference is mean low water. The harbor is almost non-tidal.

Terminal facilities. The Municipal Marina on the north end of the turning basin has a 350 foot steel bulkhead with 11 finger piers, each about 40 feet long. There are also 2 privately owned storage and repair facilities and several privately owned boathouses and

docks. The facilities are considered adequate for existing commerce.

Operations and results during fiscal year. None.

Condition at end of fiscal year. The project was completed in 1938. As of September 1984 channel depths as authorized were available throughout the project. Project determined to have inadequate economic benefits to justify further use of operation and maintenance funds. Therefore, no future maintenance is planned for this project.

22. MIAMI HARBOR, FL

Location. Miami is near the northern end of Biscayne Bay, about 71 miles south of the entrance to Palm Beach Harbor. Miami River has its source in the Everglades and flows southeasterly to enter Biscayne Bay at Miami. (See NOAA Nautical Chart No. 11468.)

Existing project. The authorized project provides for a 38 by 500 foot channel from the ocean to the outer end of the north jetty, thence 36 by 400 feet through the entrance and across Biscayne Bay to and including a turning basin at the municipal terminals; a 36 foot depth turning basin at Fisher Island; 2 rubble stone jetties at the entrance; and a channel 15 feet deep in Miami River varying in width from 250 feet at mouth to 90 feet 5.5 miles inland. Plane of reference is mean low water, except for 15-foot channel in Miami River where depths are based on flood conditions. Total length of the project is about 13 miles.

Mean tidal variation is 2.5 feet at entrance and 2 feet in the bay. Extreme variation is about 4.5 feet at entrance and 3 feet in Biscayne Bay. Strong easterly winds raise the water level about 1.5 feet at entrance and 1 foot in the bay. Strong westerly winds lower water level about 1 foot at entrance and about 0.5 foot in the bay. Estimated cost for Miami Harbor Channel is $57,100,000 Federal cost and $36,200,000 non-Federal. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date. See 1978 Annual Report for detailed local cooperation requirements. Non-Federal contribution for new work was $2,300,710. Assurances of local cooperation for the 1968 modification to the project were accepted December 18, 1968.

Terminal facilities. There are 91 commercial waterfront facilities serving the port. The General Cargo Facilities include 21,373 feet of usable berthing space, 13 transit sheds with a total capacity of 474,300 square feet, and 9 freight stations with a total storage capacity of 270,400 square feet. Oil Handling Facilities consist of 2,714 feet of usable berthing space and 36 storage tanks with a total storage capacity of 744,475 barrels. Available share house storage includes dry storage of 1,450,500 square feet and cold storage of 11,204,000 cubic feet. There are 117.1 acres of open storage at the port.

Hoisting Facilities located at the port include two 40 ton cranes and cranes with capacities up to 200 tons available through local rental. Twelve waterfront repair yards and 2 off water yards serve the port. Dry-dock facilities available include 7 marine railways and 4 boat lifts with haul out capacities ranging from 40 to 1,000 tons and lifting capacities ranging from 79 to 500 tons. Nine tugs, with ratings up to 3,000 horsepower, and 13 tank barges, with capacities up to 35,000 barrels, are also available. The CSX and the Florida East Coast Railway serve rail Facilities at the port.

Facilities are considered adequate for existing commerce. (See Port Series No. 16, Rev. 1982.)

Operations and results during fiscal year. New work: Engineering and design costs, $1,079,821. Maintenance: Engineering and design costs were $74,352.

Condition at end of fiscal year. Phase I was completed in August 1994. Phase II is scheduled for completion in November 2005. The remainder of Phase II is being taken over by the Corps of Engineers and a new Project Cooperation Agreement will be executed. A GRR for further deepening is slated for WRDA 2004.

23. NEW PASS, SARASOTA, FL

Location. Sarasota Bay is a tidal lagoon along the west coast of Florida immediately south of Tampa Bay. New Pass is a gulf inlet across the bay from Sarasota, Florida. (See NOAA Nautical Chart No. 11425.)

Existing project. The authorized project provides for an entrance channel 10 feet deep and 150 feet wide in the Gulf of Mexico diminishing to 8 by 100 feet through New Pass and extending across Sarasota Bay to the Intracoastal Waterway with side channels to, and turning basins at, Payne Terminal and city pier. Plane of reference is mean low water. Mean range of tide is 1.3 feet in Sarasota Bay; mean spring range is 1.7 feet.

Project is about 4 miles long. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date.

Terminal facilities. Consist of Payne Terminal, a slip 200 by 650 feet, and city pier, 400 feet long with 2 finger piers equipped with adequate facilities at each location.

Operations and results during fiscal year. Maintenance: Maintenance dredging contract $1,069,000, contract management $138,000, engineering and design $103,847.

Condition at end of fiscal year. Project was completed in 1964. Authorized project depths were restored as of May 2003.

24. OKEECHOBEE WATERWAY, FL

Location. The waterway traverses the southern part of the Florida peninsula via the Caloosahatchee River, Lake Okeechobee, and St. Lucie Canal, connecting coastal waterways along the Gulf and Atlantic Shores. (See NOAA Nautical Chart No. 11428.)

Previous project. For details, see page 785 of 1949 Annual Report.

Existing project. The authorized project provides for replacing the old locks on the St. Lucie Canal by a single new lock; a channel 10 by 100 feet from Ft. Myers for about 5 miles upstream, thence 8 by 80-100 feet to the Intracoastal Waterway, Jacksonville to Miami, near Stuart; a side channel at Ft. Myers; operation and care of St. Lucie Lock; and maintenance of features completed under previous projects as follows: a 12 by 200 foot channel from the Gulf of Mexico to Punta Rassa, thence 10 by 100 feet to Ft. Myers with a 10 foot depth basin at Fort Myers; a 6 by 80 foot channel along the south shore of Lake Okeechobee from Clewiston to St. Lucie Canal; a 6 by 60 foot channel in Taylor Creek from the town of Okeechobee to the Lake; and operation and care of Moore Haven and Ortona Locks. (See Table 9-B for Authorizing Legislation.)

For further details see 1962 Annual Report.

Local cooperation. Fully complied with for completed portion of project. Non-Federal contribution amounted to $503,700.

Terminal facilities. There are 3 freight piers, one municipal recreation pier, 4 privately owned piers, and a municipal yacht basin on the Caloosahatchee River near Fort Myers. The Corps has provided a boat basin, launching ramp, and a 120-foot wharf on the Caloosahatchee River about one-quarter mile below Ortona Lock. There are tie-up dolphins above and below all 5 locks. Commercial yacht basins are provided on the south side of the Caloosahatchee River about halfway between Ortona and Moore Haven Locks and about 3 miles east of LaBelle. A commercial/municipal yacht basin is provided on the north side of the St. Lucie Canal at Indiantown.

There are numerous small wooden-pile landings along the Caloosahatchee River, St. Lucie Canal, and on the St. Lucie River, including one railroad terminal pier, municipal pier, and a pier for handling petroleum products at Stuart. Also, 550 feet of wharves have been provided on the west side of Taylor Creek immediately landward of Hurricane Gate No. 6 and 150 feet on the east side of the creek. A yacht basin has been provided on the west side of the creek immediately landward of the hurricane gate. The installations on Taylor Creek are privately owned, but are open to the public. A breakwater-protected harbor is available at Pahokee. There is a 440 foot marginal wharf on the Industrial Canal at Clewiston; a 125 foot wharf at LaBelle; a 150 foot wharf at Belle Glade; a 125 foot wharf at Moore Haven; a 50 foot wharf at Alva; and a 30 foot wharf on Taylor Creek at the town of Okeechobee. A docking facility for loading raw sugar was constructed in 1967 on Herbert Hoover Dike near Belle Glade. All have highway and/or railway connections. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. (See Table 9-L for work accomplished.)

Condition at end of fiscal year. The project is complete. (The 8 foot depth basin at Stuart was deauthorized by WRDA of 1988, P.L. 100-676.)

25. OKLAWAHA RIVER, FL

Location. The river has its source in a system of large lakes in the central part of the Florida peninsula and flows generally northerly, then easterly, and emptying into St. Johns River 22 miles upstream from Palatka. The extreme head of the system is considered to be Lake Apopka, 120 miles above the river's mouth.

Previous projects. For details, see page 613 of 1938 Annual Report.

Existing project. The authorized project provides for clearing a channel to Lake Griffin; maintaining dikes

to obtain a navigable depth of about 4 feet to Leesburg and construction of a lock and dam at Moss Bluff. The project length is about 85.7 miles. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date.

Terminal facilities. Several private and public landings and boat-launching ramps are located along the river. Public recreation craft basins and boat launching ramps are near Silver Springs and State Roads 40 and 316 bridges. There is a municipal wharf on Lake Griffin at Leesburg. A dam has created Lake Ocklawaha (13,000 acres) with egress to the St. Johns River through Buckman Lock. Along the lake are 4 launching ramps; Payne's Landing, Orange Springs, Kenwood Landing, and Rodman Recreation Area. Access below the dam is at the Ocklawaha Boat launch ramp and at State Road 19. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. Snagging and Clearing, $25,981

Condition at end of fiscal year. The project is complete. (A 6-foot depth channel from the mouth of the river to the head of Silver Springs Run was deauthorized.) The Moss Bluff lock and dam structure was replaced under the Four River Basins, Florida flood control project.

26. PALM BEACH HARBOR, FL

Location. The authorized project is located on the east coast of Florida about 71 miles north of the entrance to Miami Harbor and about 264 miles southeasterly from the entrance to Jacksonville Harbor. (See NOAA Nautical Chart No. 11472.)

Existing project. The authorized project provides for an entrance channel 35 by 400 feet merging with an inner channel 33 by 300 feet to and including a turning basin; tank revetment; and restoring jetties. Plane of reference is mean lower water. The project is about 1.6 miles long.

Mean range of tide in the ocean at the entrance is 2.8 feet and at the turning basin, 2.2 feet. Extreme range of tide is about 4.5 feet at the inlet and 3 feet at the terminals. Seven-foot tidal ranges have occurred during storms. For details, see 1962 Annual Report. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date. For requirements, see 1961 Annual Report.

Terminal facilities. The port has 13 commercial waterfront facilities. The General Cargo Facilities include 5,156 feet of usable berthing space and 6 transit sheds with a total of 118,030 square feet of storage capacity. The Oil Handling Facilities consist of 10 storage tanks with a total capacity of 2,029,600 barrels. Usable berthing space is not available at the Oil Handling Facilities. Dry storage is available at 150,500 square feet, cold storage at 19,200 cubic feet and open storage at 27.1 acres. Seven cranes with capacities from 15 to 230 tons are located at the port. There are no floating cranes, repair facilities or dry-dock facilities located at the port. A 100-ton vertical boatlift is located on the Intracoastal Waterway south of the port for heavy lifts. Two tugs with ratings of 900 and 1,000 horsepower are available. The Palm Beach Belt Line, which connects, with the Florida East Coast Railway serves the port.

Facilities are considered adequate for existing commerce. (See Port Series No.16, Rev. 1982.)

Operations and results during fiscal year. Maintenance: Real estate management $35,887: Contract dredging, $1,953,797; engineering and design, $473,681, contract management, $524,284.

Condition at end of fiscal year. The project was completed in 1967. Jetties and revetment are in need of repair. Maintenance dredging was completed May 2003. Future maintenance dredging will occur yearly as necessary depending on shoaling conditions.

27. PALM VALLEY BRIDGE, FL

Location. Palm Valley Bridge is located over the Intracoastal Waterway on State Road 210 in St. John's County, Florida.

Existing project. The project replaced the existing Palm Valley Bridge with a new high-level bridge that is fixed for navigation. Additional roadway construction was required because of the new bridge alignment. The old bridge was removed and the Intracoastal Waterway in the vicinity of the old bridge will be dredged to its authorized dimensions. (See Table 9-B for Authorizing Legislation).

Local cooperation. Operations and maintenance at an estimated $75,000 per year.

Terminal facilities. None in the immediate area.

Operations and results during the fiscal year. New Work: Real estate cost was $9,652; bridge construction

cost was $750,676; Engineering and design cost was $96,301. Construction management cost was $34,989.

Condition at end of fiscal year. Local sponsor is funding expansion from 2 to 4 lanes. PCA executed in December 1999. Construction contract awarded September 2000. The County Commissioners have approved a betterment to a 4-lane bridge. The new bridge was completed in July 2002.

28. PONCE DE LEON INLET, FL

Location. Ponce de Leon Inlet is on the Atlantic coast of Florida about 65 miles south of St. Augustine Harbor and 57 miles north of Canaveral Harbor. (See NOAA Nautical Chart No. 11485.)

Existing project. The authorized project provides for an entrance channel 15 by 200 feet across the ocean bar, thence 12 by 200 feet and 12 by 100 feet through the inlet; thence southward in Indian River North, 12 by 100 feet, and northward in Halifax River, 7 by 100 feet, each leg continuing to the Intracoastal Waterway; ocean jetties on the north and south of the inlet 4,200 and 2,700 feet long respectively, and weir in the north jetty with an impoundment basin inside the jetty. Plane of reference is mean low water. Mean range of tide is 4.1 feet in the ocean and 2.3 feet inside the inlet. The project is about 5 miles long.

Estimated cost for new work is $3,500,000 Federal and $2,900,000 non-Federal.

Local cooperation. Fully complied with to date. Non-Federal contribution for new work was $2,452,600.

Terminal facilities. None in the immediate area.

Operations and results during fiscal year. New Work: Engineering and design cost was $55,680. Maintenance: Contract management costs were $725.

Condition at end of fiscal year. The north jetty revetment is complete.

29. PONCE HARBOR, PR

Location. Ponce Harbor is an open bay about midway on the south coast of Puerto Rico. From the center of the city of Ponce, the harbor is about 3 miles south. (See NOAA Nautical Chart No. 25677.)

Previous project. For details, see page 12 of Annual Report for 1975.

Existing project. The authorized project provides for a seawall 362 feet long extending northwesterly across the rock reef from near the landward end of the municipal pier, 30 feet deep and containing about 18 acres; a breakwater 2,400 feet long extending southwesterly from Punta Carenero; a channel 36 feet deep by 600 feet wide extending from the Caribbean Sea approximately 2.8 miles up to the port, thence a channel 400 feet wide by 36 feet deep into the harbor, and a 36 foot deep, irregularly shaped turning basin with a diameter of 959 feet. Plane of reference is mean low water. Mean tidal range is 0.6 foot, extreme varies between about 1 foot below and 2 feet above mean low water. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Should provide all lands, easements and rights-of-way; provide and maintain at local expense depths in berthing areas and local access channels; hold United States free from any damages resulting from construction and maintenance of the project; relocate without cost to the United States all cables, sewer mains, water supply, drainage and other utility installations as required; provide adequate public terminal and transfer facilities open to all on equal terms. A letter has been received from mayor of Ponce, assuring compliance with local requirements and to cost share the project. Non-Federal contribution for new work was $717,304. A 25 percent contribution is required and an additional 10 percent reimbursement over 30 years from locals.

Terminal facilities. The municipality of Ponce owns and operates the only deep-draft terminal facilities in Ponce Harbor, which consist of a municipal pier 515 feet long and 108 feet wide, and a bulkhead wharf 3,811 feet long. Both are equipped for transfer and storage of freight. A 40-ton container lift shore crane is available for the handling of loaded containers. The municipal pier has a steel transit shed 386 by 85 feet. The bulkhead wharf has 4 steel transit sheds totaling over 103,000 square feet. Three concrete and steel warehouses are available providing 800,000 square feet for general storage. Open storage areas for structural steel, lumber, and other bulk and package commodities are also provided. Bulk cement is handled and loaded into cement cargo ships by the use of a private pipeline loading facility. A tuna fish processing and canning factory is located on the premises, with direct access to the bulkhead wharf. Existing facilities are open to the public. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. Maintenance: None.

Condition at end of fiscal year. Construction of the project is complete. South and north jetties are in fair condition.

30. PORT EVERGLADES HARBOR, FL

Location. The harbor is on the east coast of Florida about 23 miles north of Miami and about 48 miles south of Palm Beach Harbor, Florida. (See NOAA Nautical Chart No. 11470.)

Existing project. The authorized project provides for an ocean entrance channel 45 by 500 feet through an ocean bar tapering to 42 by 450 feet between rubble stone entrance jetties, and continuing at that depth to an irregularly flared entrance and turning basin of same depth; enlarging Pier 7 channel to 36 by 400 feet for distance of about 1,600 feet; maintenance of the locally dredged channel opposite Berth 18 to 36 feet deep over a length of 700 feet with varying widths of 200 to 150 feet; construction of a south jetty fishing walkway; and, maintenance of the jetties. Plane of reference is mean low water. The project is about 1.9 miles long. Mean range of tide is 2.5 feet at the entrance and 2.3 feet at the terminals; extreme range is about 4.5 feet with storm tides of about 6.5 feet.
Estimated cost of new work is $240,000,000 Federal and $86,000,000 non-Federal.

Local cooperation. Fully complied with for work completed to date. For work under H 144/93/1, local interests must: provide all lands, easements and rights-of-way; save United States free from damages; accomplish utility and other relocations or alterations; provide depths in berthing areas and local access channels serving the terminals commensurate with depths provided in the related project areas; establish regulations prohibiting discharge of pollutants into waters of the channel by users thereof; prohibit erection of any structure within 100 feet of project channel as authorized at time of construction; provide and maintain public terminal and transfer facilities; contribute 50 percent of total first costs of recreational jetty fishing facility; and operate and maintain jetty fishing facility. The local sponsor has furnished assurances of local cooperation for the 1974 authorization.

Terminal facilities. There are 22 commercial waterfront facilities serving the port. The General Cargo Facilities include 13,807 feet of usable berthing space, 7 transit sheds with a total capacity of 393,870 square feet, and 6 container yards with space for 3,965 containers. Oil Handling Facilities consist of 232 storage tanks with a total storage capacity of 9,564,800 barrels. There is no usable berthing space located at the Oil Handling Facilities. Dry storage is available at 225,000 cubic feet and open storage at 100.3 acres.

Hoisting facilities available from a local firm include 8 cranes with capacities from 20 to 155 tons. No floating cranes or derricks for heavy lifts are available at the port. There are 2 marine repair yards. Dry-dock facilities include 2 dry-docks with capacities of 2,200 and 3,200 tons and a 4,270 ton vertical boatlift. Three tugs with ratings up to 4,290 horsepower serve the port. The Port Everglades Belt Line connects with the CSX railroad to serve the port.

Facilities are considered adequate for existing commerce. (See Port Series No. 16, Rev. 1982.)

Operations and results during fiscal year. Maintenance: Engineering and design costs were $143,878.

Condition at end of fiscal year. Feasibility study to expand and deepen the port is scheduled to be completed in October 2005. PED is scheduled to start in May 2006 with an October 2006 completion date at a Federal cost of $750,000.

31.REMOVAL OF AQUATIC GROWTH FROM NAVIGABLE WATERS IN THE STATE OF FLORIDA.

Location. Water hyacinth, hydrilla and water lettuce are found in Federal navigation projects in the Jacksonville District.

Existing project. The authorized project provides for destruction or removal of aquatic growth in Federal navigation projects in Jacksonville District, which threaten or negatively impact navigation. This project is 100% federally funded. No estimate of the final cost of work has been made. (See Table 9-B for Authorizing Legislation.)
For further details, see 1962 Annual Report.

Local cooperation. None required.

Operations and results during fiscal year. Maintenance: Operations continued during the year: $3,957,194. (See Table 9-B for Authorizing Legislation and Table 9-M for spraying operations.)

Condition at end of fiscal year. The project is for maintenance of federal navigation projects. During the year approximately 10,000 acres of floating vegetation (water hyacinth and/or water lettuce) and 5,000 acres of hydrilla were controlled.

32. ST. AUGUSTINE HARBOR, FL

Location. The harbor is on the east coast of Florida, about 35 miles south of the entrance to St. Johns River and about 180 miles north of Fort Pierce Harbor. (See NOAA Nautical Chart No. 11485.)

Previous project. For details see page 412 of Annual Report for 1958.

Existing project. The authorized project provides for a channel 16 by 200 feet along the best natural new inlet bar, thence 12 feet deep to the Intracoastal Waterway; a sand trap groin on the north side of the inlet extending seaward from the shore of Vilano Beach, and a sand-tight jetty on the south side of the channel extending seaward from the shore of Conch Island parallel to and coextensive with the groin; future landward extension of the groin and jetty; and a channel 10 by 100 feet in San Sebastian River from the Intracoastal Waterway to King Street Bridge, with a turning basin near the upper end. Length of the inlet channel is about 1.5 miles and length of the San Sebastian River channel is about 2.6 miles. Plane of reference is mean low water. The mean tidal range is 4.5 feet in the ocean at St. Augustine Inlet and 4.2 feet at the city waterfront. Strong northerly winds, mostly in the winter, lower the water surface about 1 foot. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Fully complied with to date.

Terminal facilities. There are several timber docks on the Matanzas waterfront of St. Augustine. In this area of the harbor is a concrete dock, which serves as a municipal yacht pier. It has fuel facilities, 19 slips and accommodates boats up to 60 feet in length. A large public boat ramp is also available. The principal terminals are the numerous shrimp docks in the San Sebastian River, which flows southward through the city into the Matanzas River south of the bridge. These consist of timber wharves, with frame and corrugated iron warehouses thereon, and 9 marine railways for small boats. There is also a marine supply facility and several boat yards. The present terminals have highway connections and several of the shrimp docks have rail connections. They are considered adequate for existing commerce and recreational craft.

Operations and results during fiscal year. Maintenance: $7.

Condition at end of fiscal year. Project is complete except for the North Jetty, which is in a deferred status. The groin is in good condition except for the 300 feet, which has subsided to about elevation 3.0 feet, mean low water. The jetty is in good condition, but is submerged at high tide. Maintenance dredging at the entrance channel was completed December 2002.

33. ST. JOHNS RIVER, FL, JACKSONVILLE TO LAKE HARNEY

Location. Rises in marshes of Brevard County, Florida, near east coast, and flows northwesterly to Jacksonville, thence easterly into the Atlantic Ocean, 122 miles south of Savannah River. River is about 285 miles long, of which 161.5 miles are included in project. (See NOAA Nautical Chart No. 11492.)
Previous projects. Adopted by River and Harbor Acts of June 14, 1880 and July 5, 1884. For further details see Annual Reports for 1915 and 1938.

Existing project. Channel is 13 by 200 feet from Florida East Coast Railway Bridge at Jacksonville to Palatka, thence 12 by 100 feet to Sanford, and thence 5 by 100 feet to Lake Harney, with side channel to Enterprise and maintenance of two jetties.
Existing project was authorized by River and Harbor Acts of March 2, 1945 (H 445/78/2) and July 24, 1946 (SD 208/79/2). For further details see Annual Report for 1962.

Terminal facilities. There are 36 piers and wharves along project, including municipal piers and wharves at Green Cove Springs and Palatka, 12 Navy piers at Green Cove Springs, a municipal recreational pier at Sanford, and 19 privately owned piers, 5 of which have nearby tank storage facilities for petroleum projects. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. None.

Condition at end of fiscal year. Active portion is complete. Condition of project, as a whole is adequate for present needs of navigation. (For more detailed information refer to 1963 Annual Report.)

34. ST. LUCIE INLET, FL

Location. The inlet is on the east coast of Florida about 19 miles south of the entrance to Fort Pierce Harbor, Florida, and 100 miles north of the entrance to Miami Harbor, Florida. (See NOAA Nautical Chart No. 11472.)

Previous project. For details see page 764 of Annual Report for 1949.

Existing project. The authorized project provides for extending the north jetty about 500 feet and modifying existing jetty to provide a sand bypass weir section about 500 feet long; excavation of a sand impoundment basin adjacent to the bypass weir in the north jetty; construction of a south jetty consisting of a rubble mound structure about 2,400 feet long with a walkway for recreational fishing; channel between existing bar cut and the Intracoastal Waterway 10 by 500 feet through the bar cut, tapering to 150 feet through the inlet, and 7 by 100 feet to the Intracoastal Waterway; and transfer of 380,000 cubic yards of material to the south beach during each two year maintenance period. Total project length is about 1.9 miles. Plane of reference is mean low water. Mean tidal range is 2.6 feet on the ocean side and about one foot on the landside of the inlet. (See Table 9-B for Authorizing Legislation.)

Estimated cost of new work $16,800,000 Federal and $4,400,000 non-Federal.

Local cooperation. Local interests must: contribute 19.9 percent of construction cost allocated to navigation in the combined project, 23.1 percent allocated to beach erosion, and 50 percent of construction cost of jetty fishing walkway; provide 39.8 percent of the annual maintenance cost allocated to navigation and 23.2 percent of the annual costs for maintenance dredging allocated to beach erosion control for periodic beach nourishment and 100 percent of the annual jetty maintenance costs allocated to beach erosion control; maintain jetty fishing walkway; agree that each 5 years the amount of local cost sharing for maintenance is to be adjusted; provide all lands, easements, and rights-of-way; hold United States free from damages; provide marina with mooring facilities and utilities; provide and maintain depths in berthing area and local access and feeder channels commensurate with the depths provided in the project; accomplish such alterations as required to sewer, water supply, drainage, and other utility facilities, and take action to place in effect statutes and/or regulations which will protect water quality for the authorized uses of the project. The local sponsor signed assurances of local cooperation for the 1974 modification on August 24, 1978. Non-Federal contribution for new work was $3,851,383.

Terminal facilities. A municipal pier provides facilities for docking and servicing charter fishing and small recreational craft. At Stuart there is a dock for handling bulk petroleum products and several marinas, which provide facilities for mooring, servicing and minor repair of small craft. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. New Work: Navigation $300,459; engineering and design, $4,006; contract supervision, $4,614. Maintenance: Engineering and design, $98,485.

Condition at end of fiscal year. Work required to complete the project is construction authorized in HD 294/93/1. Improvements to the inlet were authorized in 1974. Due to limited funding during construction, the south jetty was completed 1,000 feet short of the authorized length; the impoundment basin was not constructed to design capacity as a shallow subsurface rock was encountered. Sufficient commercial benefits were identified in the economic update study to reclassify the inlet from a predominately recreational usage inlet to a commercial usage inlet. Construction of impoundment basin was completed August 2002. Construction of remaining jetty elements scheduled for summer 2005. Authorized project depths were restored as of August 2002.

35. SAN JUAN HARBOR, PR

Location. San Juan Harbor is on the north coast of Puerto Rico and about 35 miles from the east end of the island and 1,100 miles southeast of Miami, Florida. (See NOAA Nautical Chart No. 25670.)

Previous projects. For details see Annual Reports for 1915, 1916, and 1938.

Existing project. The authorized project to provide the deepening of the Bar Channel to 48 feet and shifting its alignment 350 feet west; deepening Anegado and Army Terminal to 40 feet; deepening Graving Dock Channel, the Cruise Ship Basin, Puerto Nuevo Channel, and San Antonio Channel to 36 feet; and deepening Anchorage Area E to 38 feet while reducing its size and constructing 6 mooring dolphins within its limits. The Sabana approach channel deepened to 32 feet. Estimated cost of new work $45,300,000 Federal and $16,400,000 non-Federal.

Local cooperation. Should provide all lands, easements and rights-of-way; hold the United States free from any damages; provide and maintain depths in berthing areas and local access and feeder channels; provide alterations as required to sewer, water supply, and other utility facilities. It is further recommended that local interests be reimbursed for work performed by them on the project subsequent to project authorization. A 25 percent contribution and an additional 10 percent reimbursement over 30 years from locals are required. Non-Federal contribution for new work was $16,128,708.

Terminal facilities. There are 28 piers and bulkhead wharves in the harbor capable of docking deep-draft vessels, which have an aggregate berthing length of about 23,700 feet. Eleven piers and bulkhead wharves are on the north shore, 2 piers and a three-level ramp facility for roll-on/roll-off operations at Front Graving Dock turning basin and channel, 9 at the eastern side and 3 at the western side of the Army Terminal basin and channel, and 3 on the south shore of San Antonio Channel. One pier and bulkhead wharf are privately owned, 7 are U.S. Government property, and the Commonwealth of Puerto Rico owns 24. Twenty piers and wharves are equipped with mechanical crane transfer facilities. Five wharves are equipped with a special crane for handling loaded containers. Twenty-four are open to the general public. Pier No. 6 was repaired and improved in 1985.

There is an aggregate length of about 1,339 feet of berthing space at Catano Point used principally by small vessels within the 18-foot draft range. This space is also open to the public. In addition, there are 10 piers and bulkhead wharves with approximately 6,910 feet of berthing space owned and operated by different agencies of the Federal Government. This space is not open to the public.

Facilities are considered adequate for existing commerce.

Operations and results during fiscal year. New Work: Real estate cost was $41,482; channels and canal cost was $3,247,058. Navigation cost was $856,056; engineering and design cost was $379,955. Construction management cost was $68,761. Maintenance: Dredging contract cost were $108,833, engineering and design $353,101.

Condition at end of fiscal year. The PED phase was completed in September 1995. Revisions to the plans and specifications were accomplished in FY 97. Execution of PCA was completed June 1998. Authorized in WRDA 1996. Contract II (navigation improvements for the Bar, Anegado, and Army Terminal Channel) has been completed. Plans and specifications for Mitigation contract are ongoing and contract is scheduled for award in FY 04.

Existing project includes the entrance channel and turning basin to Army Terminal, which cost $1,543,712 (this expenditure was made from military appropriations and is not included in Table 9-A costs).

36. TAMPA HARBOR, FL

Location. Tampa Harbor is in a large natural indentation of the Gulf of Mexico about midway of the west coast of Florida. The entrance is about 220 miles north of Key West and about 330 miles southeast of Pensacola. (See NOAA Nautical Chart Nos. 11413 and 11414.)

Previous projects. For details see page 665 of 1938 Annual Report.

Existing project. The authorized project provides for a channel from the Gulf of Mexico to Port Sutton and Tampa; 46 by 700 feet from the Gulf of Mexico to Mullet Key; 44 by 600 feet in Mullet Key Cut Channel; 44 by 500 feet in Tampa Bay from Mullet Key Cut to Hillsborough Bay and Port Tampa Channels; 44 by 500 feet in Hillsborough Bay from junction with Tampa Bay and Port Tampa Channels to the junction with Port Sutton entrance channel, thence 42 by 400 feet to the junction with Seddon and Garrison Channels; 44 by 400 feet in Port Sutton entrance channel; 42 by 400 feet in Sparkman Channel; 40 by 300 feet in Ybor Channel; 42 by 400 feet in Port Tampa Channel; 44 by 400-500 feet in East Bay entrance channel; 44 by 300 feet in East Bay approach channel; 12 by 200 feet in Seddon and Garrison Channels; 32 by 200 feet in Alafia River; 9 by 100 feet in Hillsborough River to a point 2,000 feet above Columbus River bridge; a breakwater; a 42 by 290 foot Port Sutton Terminal Channel 3,700 feet long; turning basins at Ybor Channel, Port Tampa, East Bay, mouth of Hillsborough River, and in Alafia River; and maintenance of a channel 12 by 200 feet in Hillsborough River, and 34 by 300 feet in East Bay Channel. (The 46-foot and 44 foot depth portions of the project include a 5-foot under keel clearance. Special studies on the project concluded that 4 feet under keel is sufficient. Therefore, a one-foot over depth has been placed in an inactive status, resulting in active project depths of 45 and 43 feet respectively.)

Plane of reference is mean low water. The project is about 67 miles long, including 10 miles in Hillsborough River and 3.6 miles in Alafia River. Mean range of tide is 1.3 feet at the lower end of the bay, 1.6 feet at Port Tampa, and 1.8 feet at Tampa. Extreme range is about 3.8 feet at the lower end of the bay and 4.8 feet at Tampa. Strong southwesterly winds raise the water level about 1.5 feet. Strong northerly winds, which usually occur in the winter, lower the water level about 2 feet. (See Table 9-B for Authorizing Legislation.)

Estimated cost for Big Bend Channel $9,100,000 Federal and $6,400,000 non-Federal. Estimated cost for Alafia River is $39,000,000 Federal and $15,000,000 non-Federal. Estimated cost for Port Sutton is $7,000,000 Federal and $4,800,000 for non-Federal.

For further details, see 1962 Annual Report.

Local cooperation. Local cooperation has been fully complied with for work completed to date. See 1978 Annual Report for requirements for work authorized by the River and Harbor Act of 1970, H 401/91/2 and H 150/91/1. The Secretary of the Army approved assurances of local cooperation for the 1970 authorization on January 10, 1973. The LCA for branch channels was signed June 20, 1986. An amendment to the LCA reflecting cost sharing requirements of WRDA of 1986 for section 6 was signed August 31, 1987. Non-Federal contribution for new work was $4,971,144. A 25 percent contribution and an additional 10 percent reimbursement over 30 years are required from locals.

Terminal facilities. There are 102 commercial waterfront facilities serving Tampa Harbor. The General Cargo Facilities consist of 7,226 feet of usable berthing space and 15 transit sheds with a total of 585,200 square feet of storage space. The Oil Handling Facilities include 16,440 feet of usable berthing space and 316 storage tanks for a total capacity of 11,610,350 barrels. Dry storage is available at 1,904,750 square feet, cold storage at 14,309,000 cubic feet, and open storage at 59.4 acres. There are 2 wharves available for coal storage at 750,000 tons total storage and grain elevators with a 3,400,000-bushel total capacity. One elevator on Ybor Channel has a 1,000,000-bushel capacity.

Hoisting Facilities include 13 cranes, fixed and mobile, with capacities from 45 to 150 tons and other crawler and mobile cranes available locally. Marine repair yards include 9 waterfront repair facilities and numerous other off water companies engaged in various phases of marine repair. There are 4 floating and 4 graving docks available at the port with capacities ranging from 548 to 5,400 long tons. Floating equipment includes 24 tugs with up to 3,350 horsepower and 4 companies with tank barges of capacities up to 14,000 barrels. The CSX Railroad serves the port.

Facilities are considered adequate for existing commerce. (See Port Series No. 17, Rev. 1979.)

Operations and results during fiscal year. New work: Alafia River Engineering and design, $67,914. Port Sutton: Engineering and design cost was $12,849. East Bay Channel: Real estate cost was -$4,571. Big Bend: Engineering and design cost was $48,837. GRR: Engineering and design cost was $436,747. Maintenance: Dredging for cuts A, C, J, and K $4,599,784; engineering and design $1,274,599; and construction management $323,466.

Condition at end of fiscal year. Big Bend Channel Chief's report signed in October 1998. PED agreement executed February 1998. PED currently underway. Feasibility report for Alafia River completed October 2000. Final feasibility report is expected to be approved by HQUSACE and underway by December 2003. Port Sutton is on hold awaiting completion of bulkhead/stabilization work by sponsor. Plans and specifications will begin after sponsor work nears completion.

37. NAVIGATION PROJECTS ON WHICH RECONNAISSANCE AND CONDITION SURVEYS ONLY WERE CONDUCTED DURING PERIOD

Total cost was $751,406. (See Table 9-H.)

38. OTHER AUTHORIZED NAVIGATION PROJECTS

(See Table 9-C.)

39. NAVIGATION WORK UNDER SPECIAL AUTHORIZATION

Navigation Activities Pursuant to Section 107, Public Law 86-645 (Preauthorization)

Fiscal year costs for Section 107 Coordination Account, $33,124; Salt Run, St. Augustine, FL, $30,277; Hernando Beach Channel, FL $43,904; Canaveral Harbor (West Turning Basin), FL -$28; Palm Beach Harbor, FL $352,566; Ponce de Leon, FL $39,197; Port Everglades Harbor, IWW $45,406.

Snagging and clearing for navigation (Section 3 of 1945 River and Harbor Act, Public Law 14, 79th Congress.)

No costs incurred.

Mitigation of shore damages attributed to navigation projects (Sec 111).

Stohl Road, Aguadilla Harbor, PR $2,291; Virginia Beach Key, FL $147,983; Aguadilla Coast Line, PR $4,845.

Beach Erosion Control

40. BREVARD COUNTY, FL

Location. The project is on the east coast of Florida at approximately the midpoint of the peninsula. (See NOAA Nautical Chart Nos. 11484 and 11476.)

Existing project. The authorization provides for a protective and recreational beach with a berm 50 feet wide at elevation 10 feet above mean low water and a natural seaward slope as would be shaped by wave action, along 9.4 miles from the Canaveral harbor south jetty to Patrick Air Force base, (North Reach) and 3.4 miles of beach at Indialantic and Melbourne beach, and for periodic nourishment of the restored beach at Indialantic and Melbourne beach limited initially to a period of 6 years. Nourishment of the restored beach at the city of Cape Canaveral would be provided by the authorized sand-transfer plant for construction at Canaveral Harbor. The project also provides for improvement of the Federally owned shores for beach erosion control or hurricane protection to be accomplished by the Federal agencies involved, subject to their own determination of economic justification. Mean tidal range in the area is 3.5 feet. (See Table 9-B for Authorizing Legislation.) Estimated cost for new work $142,600,000 Federal and $98,600,000 non-Federal.

Local cooperation. Local interests must contribute 50 percent of all first costs of the work and 50 percent of the nourishment cost at Indialantic and Melbourne beach for the first 10 years of the project life; provide lands and rights-of-way; provide, after the first 10 years of project life, periodic nourishment of the restored beach at Indialantic and Melbourne beach during project life; maintain continued public ownership of the shore upon which the amount of Federal participation is based; control water pollution; and hold the United States free from damages. The Secretary of the Army approved assurances of local cooperation on July 9, 1973. Non-Federal contribution for new work was $15,411,026.

Operations and results during fiscal year. New work: Lands and damages cost was $65. Beach replenishment cost was $2,627,725. Engineering and design cost was $142,785. Construction management cost was $128,327.

Condition at end of fiscal year. Feasibility report was completed in September 1996, approved in December 1996, and authorized by Section 101(b) of WRDA 1996. PED completed in September 1999. PCA was signed April 2000 and North Reach contract was awarded September 2000. A continued construction contract was awarded for South Reach in December 2001 and completed in April 2003. A GRR will be initiated in FY04 for the mid reach, which consists of 7.6 miles south of Patrick Air Force base. The GRR is scheduled to be completed by September 2007.

41. BROWARD COUNTY, FL BEACH EROSION CONTROL AND HILLSBORO INLET, FL NAVIGATION PROJECT

Location. Broward County is on the lower east coast of Florida, 300 miles south of Jacksonville and about 30 miles north of Miami. Hillsboro Inlet is in the northern part of Broward County. (See NOAA Nautical Chart No. 11466.)

Existing project. The authorization provides for Federal participation in cost sharing of a shore restoration and protection project and a project to maintain a channel adequate for small craft navigation. The authorized plan provides for restoration of a shoreline protection and recreational beach at 4 locations generally 100 feet wide with berm elevation of 10 feet above mean low water; a navigation channel 8 by 100 feet from the Intracoastal Waterway to a point 1,500 feet ocean ward in Hillsboro Inlet, thence

10 by 150 feet in the ocean; jetties on north and south sides of ocean entrance; a permanently based floating dredge; and on a deferred basis, a trestle-mounted sand-transfer plant, if needed. Navigation portion of the project is in an inactive status. Mean range of tide in areas is 2.5 feet. Plane of reference is mean low water.

Cost estimate for Broward County is $112,200,000 Federal and $100,800,000 non-Federal contribution. For Hillsboro Inlet, $3,400,000 and $1,100,000 non-Federal. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Local interests must contribute 90.5 percent of the first cost beach restoration in the reach between north county line and Hillsboro Inlet, Seg. II, 90 percent of first cost allocated to beach restoration, and 50 percent of first cost allocated to navigation for reach between Hillsboro Inlet, Seg. III, and Port Everglades and 72.4 percent of beach restoration in reach between Port Everglades and south county line; provide all lands and rights-of-way; obtain approval of Chief of Engineers of plans and specifications if local interests construct beach erosion features; and furnish assurances that they will hold the United States free from damages; provide and maintain adequate public landing or wharf at Hillsboro Inlet; establish a public body to cooperate financially and to provide and operate local facilities for navigation, control water pollution, maintain ownership of publicly owned shores, and maintain all project works except the jetties (maintenance of the channel to revert to the United States if sand-transfer plant is constructed). Assurances of local cooperation were accepted November 22, 1968. Non-Federal contribution for new work was $3,460,990.

Operations and results during fiscal year. New work: Broward County BEC: Hillsboro Inlet: Lands and damages, $5,471; beach re-nourishment contract $1,456,000; engineering and design $203,861.

Condition at end of fiscal year. The GRR for re-nourishment of Segments II and III, prepared by Broward County, is under Washington level review. The County intends to award a contract for re-nourishment of Segment III in the summer of 2004. The City of Deerfield Beach has recently indicated a desire to initially construct Segment I. The FEIS is scheduled to be filed by January 2004. A GRR will be initiated in 2004 by USACE for segment I based upon funding appropriated by congress in FY03 and FY04

42. DUVAL COUNTY, FL

Location. On upper east coast of Florida, within 20 miles of Florida-Georgia line. Ocean shoreline is about 16 miles long. (See NOAA Nautical Chart No. 11488.)

Existing project. Provides for Federal participation toward cost of construction with artificial fill, a beach 60 feet wide at elevation 11 feet above mean low water with a natural slope seaward, and for periodic nourishment for 10 years. Federal participation to be 100 percent of the first cost of construction applicable to the Federal shore and 50 percent applicable to the other publicly owned shore and 55.5 percent of periodic nourishment cost for first 10 years of project life. Mean tidal range at south jetty in St. Johns River is 4.9 feet.

Estimated cost of new work $117,200,000 Federal and $76,700,000 non-Federal.

Project was authorized by River and Harbor Act of 1965 (H 273/89/1).

Local cooperation. Local interests must contribute 50 percent of first cost of constructing non-Federal publicly owned shores; contribute 44.5 percent of periodic nourishment costs for first 10 years of project life; provide all lands, rights-of-way, and relocations; hold the United states free from damages; control water pollution; and furnish assurances that they will maintain continued public ownership of the shore upon which the amount of federal participation is based during economic life of project. Assurances of local cooperation were accepted on November 29, 1973. Non-Federal contribution for new work was $19,595,567.

Operations and results during fiscal year. New work: Engineering and design cost was $258,062; beach re-nourishment contract $3,073,887; contract management $136,979.

Condition at end of fiscal year. Re-nourishment of the shore protection project was combined with the contract for dredging the Jacksonville Harbor navigation project. The shore protection project paid the additional costs to dispose of 200,000 cubic yards of sand along 5 miles of the project area. The work was completed in January 2003.

43. FORT PIERCE BEACH, FL

Location. Fort Pierce Beach Erosion Control Project extends 1.3 miles south of Fort Pierce Inlet, on the east coast of Florida about 120 miles north of Miami.

Existing project. The project fill was initially completed by local interests in 1971, using offshore borrow material. Prior to the nourishment, severe shorefront recession had destroyed a private residence and threatened other residences and a state road. Local interests were reimbursed the federal share of the initial project construction cost. Federal participation in re-nourishment was authorized for an initial 10-year period and subsequently extended five years under the discretionary authority of the Chief of Engineers until 1985. The project was re-nourished in 1980 and 1999.

A Section 111 project authorized in 1982 provides that 60 percent of the cost of material required to nourish 1.3 miles south of Fort Pierce Inlet should be reallocated to the navigation project. A section 934 reevaluation report authorized the extension of federal participation in cost sharing to 50 years from date of initial construction to 2020. A GRR is under preparation to modify cost sharing to reflect inlet impacts and address a critically eroded area of the project. Estimated cost is $36,100,000 Federal and $15,100,000 non-Federal.

Local cooperation. Non-Federal contribution is 53%. Sponsor is fully complying with local requirements.

Operations and results during fiscal year. New work: Lands and damages $28,440, Beach replenishment contract cost was $2,603,111. Engineering and design and construction management cost was $309,510 and $157,141 respectively.

Condition at end of fiscal year. Final EIS addressing bryozoans in borrow completed and approved. Third Re-nourishment completed spring 2003. Engineering and design efforts for fourth re-nourishment completed. Construction of an artificial reef was initiated in June 2003. This reef is to mitigate for impacts to hard bottoms associated with the 1999 re-nourishment.

44. INDIAN RIVER COUNTY, FL

Location. Indian River County is on the east coast of Florida, midway between Jacksonville and Miami. The authorized project comprises 2.65 miles of beach along the ocean shore of Vero Beach and 1.7 miles along the Sebastian Inlet State Park. (See NOAA Nautical Chart Nos. 11474 and 11476.)

Existing project. The authorized project provides nourishment for 8,870 feet (1.68) miles) of the State Park, south of Sebastian inlet. The initial beach fill would consist of 202,000 cubic yards of nourishment material. An estimated 202,000 cubic yards of periodic nourishment at 5-year intervals would be required. The Federal share of the first cost was estimated to be 65 percent of this segment.

The plan also provided for nourishment of 9,180 feet (1.74 miles) of Vero Beach. The initial beach fill consisted of 572,000 cubic yards of material, including advance nourishment. The restored beach would have a 20-foot wide level berm at an elevation of 15 feet above mean low water. The beach fill as designed would provide protection against a 10-year return interval storm. An estimated 120,000 cubic yards of periodic nourishment would be required at 5-year intervals. In addition to the beach fill a "Sabecon" reef breakwater was recommended. The structure would be placed 500 feet offshore of the new beach and would be 400 feet in length, with a zero mean low water crest elevation. The Federal share of the first cost was estimated to be 43.7 percent for this segment.
The project was authorized on November 17, 1986 (Public Law 99-662) by the 1986 Water Resource Development Act.

Local cooperation. The authorization of a beach erosion control project for Indian River County, Florida was made with the provision that the State and local interests will, in addition to the general requirements, agree to comply with the following requirements: provide all necessary lands, easements and rights-of way; including borrow areas and disposal areas for excavated material, and relocations; hold and save the United States free from claims for damages; assure continued conditions of public ownership and public use of the shore; assure maintenance and repair during the economic life of the project; provide and maintain as necessary access roads, parking areas and other public use facilities; provide a cash contribution for periodic nourishment's for the life of the project; provide an additional cash contribution for the Sebastian Inlet State Park Beach. The project, as authorized, provides that the work may be accomplished in separate units or features and that the written agreement with non-Federal interests be obtained. The Indian River County Board of Commissioners, by letters dated December 21, 1984 and January 15, 1987, affirmed their support for the project and their willingness and ability to share in project costs.

Operations and results during fiscal year. New work: None.

Condition at end of fiscal year. No work is currently scheduled.

45. LEE COUNTY, FL

Location. Lee County is on the lower Gulf coast of Florida, about 90 miles south of the entrance to Tampa Bay and 130 miles north of Key West.

Existing project. The project provides for the Federal participation in restoration and protection of Lee County, Florida, as follows: On Gasparilla Island, restore beach along 2.7 miles of shore and provide revetment along 2,400 feet of shore and a 500-foot terminal groin; on Captiva Island, restore beach along 4.7 miles of shore; and on Estero Island, restore beach along 4.6 and provide a 5-year advance supply of beach nourishment material and periodic nourishment of the restored beaches, as needed, with Federal aid for nourishment limited to the first 10 years of project life after completion of the initial fill placement on each island. (See Table 9-B for Authorizing Legislation.)

Estimated cost is $189,100,000 Federal cost and $138,200,000 non-Federal cost.

Local Cooperation. Local interest must: contribute in cash) including contract price, engineering and design, and supervision and administration) 65.8 percent of first cost at Gasparilla Island, 91.3 percent of first cost at Captiva Island, and 87.5 percent of first coast at Estero Island; contribute toward beach nourishment for the first 10 years of project life, 95.5 percent for Gasparilla Island; 91.3 percent for Captiva Island, and 96.9 percent for Estero Island; and contribute 50.9 percent of the annual maintenance costs of the terminal groin on Estero Island; provide after 10 years of project life periodic nourishment of the restored beaches; provide lands, easements, rights-of-way, and relocations; assure continued public ownership for public use of the shore upon which the amount of Federal participation is based; control water pollution; save the United States free from damages; and provide an adequate width of beach with acceptable access and other facilities necessary for public use.

Operations during the year. New work: Lands and damages $4,966, Engineering and design cost was $63,729.

Condition at end of fiscal year. GRR for Estero and Gasparilla Islands is currently under review for initial construction. The County intends to award the contract for initial construction of both islands in summer 2004 under the authority of Section 206 of WRDA 92. Captiva Island second re-nourishment scheduled for summer 2005.

46. MANATEE COUNTY, FL

Location. Manatee County is on the west coast of Florida, just south of the entrance to Tampa Bay. The county's 14-mile gulf shoreline consists of 2 barrier islands, Anna Maria Key and the northern half of Longboat Key, separated from the mainland by Tampa and Sarasota Bays and from each other by Longboat Pass. Project consists of about 7.5 miles of gulf shoreline.

Existing project. Provides for Federal participation in the shore protection project for Manatee County, which includes the entire 7.5-mile, gulf shoreline of Anna Maria Key. The project consists of restoration of 3.2 miles of gulf shore beach to an elevation 6 feet above mean low water with a level berm 50 feet wide and a natural slope seaward as would be shaped by wave action. The project also provides for periodic nourishment of the restored beach and such adjacent shoreline as may be and justified for the project life. Mean tidal range is 2.3 feet. (See Table 9-B for Authorizing Legislation.)

Estimated cost is $53,800,000 Federal and $45,200,000 non-Federal.

Local cooperation. The authorization of a shore protection project for Manatee County, Florida was made with the provision that Federal cost sharing would be in accordance with policy established by existing law, and the percentages based on conditions of shore ownership and use existing at the time of construction: Provided that, prior to construction, local interests furnish assurances satisfactory to the Secretary of the Army that they will: (a) Provide without cost to the United States all lands, easements, and rights-of-way, including borrow areas, and relocations necessary for construction of the improvements; (b) Provide a cash contribution equal to 47 percent of the first cost of construction, subject to any credit for eligible construction costs incurred by local interests, and exclusive of costs for lands, easements, rights-of-way, relocations, and alterations, and exclusive of the cost of fill placed behind the Corps construction line, the final percentage to be based on shore ownership and use existing at the time of construction; (c) Provide all costs of construction for nourishment landward of the Corps construction line; (d) Provide a cash contribution for periodic nourishment equal to 41 percent of the cost of each nourishment, such contribution to be made prior to

each nourishment operation, and the final percentage to be based on shore ownership and use existing at the time of construction; (e) Hold and save the United States free from damage due to the construction works, except for damages due to the fault or negligence of the United States or its contractors; (f) Assure continued public ownership and administration of the shore upon which the amount of Federal participation is based; (g) Provide without cost to the United States appropriate access and facilities, including parking and sanitation, necessary for realization of the public benefits upon which Federal participation is based; (h) Adopt appropriate ordinances, or provide other means, to insure the intended use of the beach fill areas; (i) Control water pollution to the extent necessary to safeguard the health of bathers; and (j) Agree to pay 100 percent of the operation, maintenance, and replacement and rehabilitation's costs of the project, or functional element thereof. Non-Federal contribution for new work is $3,337,348.

Operations and results during fiscal year. New work: Beach Re-nourishment cost was $1.516,586.

Condition at end of fiscal year. Manatee County awarded a contract in December 2001 for the first re-nourishment of the project following initial construction by USACE in 1993 for $8.4 million and completed the contract in May 2002. ASA(CW) approved the use of Section 206 (WRDA 92) authority to allow the County to conduct the first re-nourishment with reimbursement of the Federal share of the costs. The audit of non-federal costs for the re-nourishment is scheduled to be completed in January 2004.

47. MARTIN COUNTY, FL

Location. Martin County is located on the east coast of Florida about 300 miles south of Jacksonville and 70 miles north of Miami. (See Table 9-B for Authorizing Legislation.)

Existing project. The recommended plan of improvement for Martin County provides for restoration of a protective beach along 3.75 miles of shoreline. The plan includes restoration of the primary dune as needed and a 35-foot wide protective berm. The recommended plan was designed to reduce environmental impacts. Of primary importance is the impact of project construction on sea turtle nesting. In order to avoid these impacts, project construction has to occur between November 1st and April 15th. Only one island segment is authorized for this project, which is located on Hutchinson Island in Martin County. The project begins at the St. Lucie/Martin County line and proceeds south 4 miles. The actual project to be constructed is 3.75 miles. The project was shortened 0.25 miles to avoid impacting sensitive hard-grounds. The borrow area is approximately 3,000 feet offshore of the southern end of the project area. (See Table 9-B for Authorizing Legislation.)

Estimated cost of new work is $37,800,000 Federal and $43,300,000 non-Federal.

Local cooperation. Martin County Board of Commissioners is the local sponsor.

Operations and results during fiscal year. New Work: Beach replenishment cost was $254,979; Engineering and design cost was $308,857; Construction management cost was $60,189.

Condition at end of fiscal year. Initial nourishment was completed April 1996. Southern half of project re-nourished spring 2001 and 2002. Northern half to be re-nourished spring 2005 and complies with project requirements and PCA.

48. NASSAU COUNTY, FL

Location. Nassau County is on the east coast of Florida, north of Jacksonville and adjoins the state of Georgia. The authorized project comprises 4.3 miles of beach along the ocean shore of northern Amelia Island, and tightening 1,500 feet of the shoreward end of the existing south jetty at the entrance to Fernandina Harbor.

Existing project. The authorized project would provide initial restoration of 3.6 miles of eroded beach, starting at a point about .7 mile south of the Fernandina Harbor south jetty and extending south to Sadler Road; sand tightening about 1,500 feet of the shoreward end of the south jetty; and periodic nourishment of 4.3 miles of shore between the south jetty and Sadler Road. The restored beach would have a 20-foot wide level berm at an elevation of 13 feet above mean low water. The initial beach fill would consist of an estimated 1,100,000 cubic yards of nourishment material. An estimated 240,000 cubic yards of nourishment at 2-year intervals would be required. Sand tightening would require about 16,700 tons of stone. The Federal share of the first cost was estimated to be 77%. (Sand tightening, accomplished as part of the Navy's effort to deepen and widen the navigation channel was deleted from the plan.)

Estimated cost of new work $13,000,000 Federal and $3,500,000 non-Federal contributed funds.

Local cooperation. The authorization of a shore protection project for Nassau County, Florida was made with the provision that the State and local interests will, in addition to the general requirements, agree to comply with the following requirements: provide without cost to the United States all necessary lands, easements, and rights-of-way, including borrow areas and disposal areas for excavated material and relocations required for construction of the project, including that required for periodic nourishment; hold and save the United States free from claims for damages which may result from construction and subsequent maintenance, operation and public use of the project, except damages due to the fault or negligence of the United States or its contractors; assure continued conditions of public ownership and public use of the shore upon which the amount of Federal participation is based during the useful life of the project; assure maintenance and repair during the useful life of the project as required to serve the project's intended purpose; provide and maintain clearly marked beach access, nearby parking areas, and other public use facilities, open to all on equal terms, and as required to realize the benefits upon which Federal participation is based; provide a cash contribution for beach erosion control equal to the appropriate percentage of the final construction cost allocated to this function, exclusive of lands, easements, rights-of-way, alterations, and relocations, the percentage to be in accordance with existing law and based on shore ownership at the time of implementation; provide a cash contribution for periodic nourishment during the useful life of the project, such contribution to be made prior to each nourishment, with the actual amount to be based on existing law and conditions of ownership at the time of each nourishment; and at least annually inform affected interests of the limitations of the protection afforded by the project.

Operations and results during fiscal year. New work: Engineering and design cost: $191,197.

Condition at end of fiscal year. Currently addressing higher authority on GRR.

49. PALM BEACH COUNTY, FL

Location. Palm Beach County is on the east coast of Florida about 300 miles south of Jacksonville and 70 miles north of Miami. (See NOAA Nautical Chart No. 11466.)

Existing project. Project authorization, the River and Harbor Act of 1962, provides for Federal participation toward the cost of local shore project for restoration of beaches to a general width of 100 feet with a berm elevation of 10 feet above mean low water, and periodic nourishment for 10 years from the year of initial nourishment, as follows: 62.1 percent of the cost for Martin County line-Jupiter Inlet segment; 55.8 percent of cost for Jupiter Inlet-Lake Worth Inlet segment; and 50 percent for south Lake Worth Inlet-Delray Beach; and 53 percent of cost for Delray Beach-Boca Raton inlet segment. Mean range of tide is 2.8 feet in the Atlantic Ocean at Palm Beach and 2.3 feet at Boca Raton Inlet. (See Table 9-B for Authorizing Legislation.)

Estimated cost for Palm Beach County is $66,700,000 Federal and $140,600,000 non-Federal cash contributions.

Local cooperation. Federal participation is subject to the conditions that responsible local authorities will: (a) obtain approval by the Chief of Engineers, prior to commencement of work on the project, of detailed plans and specifications and arrangements for prosecution of the work on the project; (b) provide at their own expense all necessary lands, easements, and rights-of-way; (c) furnish assurances satisfactory to the Secretary of the Army that they will: (1) assure maintenance of the protective measures during their economic life as may be required to serve their intended purpose, and periodic nourishment of the protective beach at suitable intervals; (2) control water pollution to the extent necessary to safeguard the health of bathers; and (3) maintain continued public ownership of the publicly owned shores upon which a part of the recommended Federal participation is based and their administration for public use during the economic life of the project.

Operations and results during fiscal year. New work: Palm Beach County BEC: Real estate cost was $1,132; beach replenishment cost was $1,629,359; engineering and design cost was $57,815. Lake Worth Inlet STP: Engineering and design cost was $28,106.

Condition at end of fiscal year. The County completed the first periodic nourishment for the Jupiter/Carlin segment in Spring 2002. Reimbursement of the costs is anticipated in March 2004 subject to availability of funds.

50. PALM BEACH ISLAND, FL

Location. Palm Beach Island is on the east coast of Florida about 300 miles south of Jacksonville and 70 miles north of Miami. (See NOAA Nautical Chart No. 11466).

Existing project. The River and Harbor Act of 1958 authorization provides for Federal participation in the costs of a plan for protection of the shore of the Palm Beach Island, comprising restoration of a protective beach with berm elevation of 10 feet above mean high water from Lake Worth Inlet to a point about 1,000 feet south of Southern Boulevard extended, thence with a general width of 100 feet to South Lake Worth Inlet, construction and operation of a sand-transfer plant at Lake Worth Inlet, and additional periodic nourishment from Lake Worth or other suitable source, substantially in accordance with the plan developed by the district engineer, with such modifications thereof as may be considered advisable by the Chief of Engineers. Federal assistance would entail contribution of funds in the amount of 4.7 percent of the initial construction cost of the beach restoration and appurtenant drainage work, and of the expenditures for periodic nourishment from Lake Worth for a period of 10 years from the year of the initial placement, plus 19.3 percent of the expenditures for construction, and for operation, maintenance, and current replacements of parts of the sand-transfer plant for the same period. Mean tidal range is 2.8 feet in the Atlantic Ocean at Palm Beach and 2.3 feet at Boca Raton Inlet. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Federal participation is subject to the conditions that responsible local authorities will: (a) obtain approval of the Chief of Engineers, prior to commencement of work on the project (except the sand-transfer plant already under contract), of detailed plans and specifications and arrangements for prosecution of the work on the project; (b) make appropriate modification of the location of the end of the discharge line of the sand-transfer plant to accomplish satisfactory dispersion of bypassed material; (c) provide at their own expense all necessary lands, easements, and rights-of-way; (d) furnish assurances satisfactory to the Secretary of the Army that they will: (1) assure maintenance of the protective measures during their economic as may be required to serve their intended purpose, and periodic nourishment of the protective beach at suitable intervals, including operation of the sand-transfer plant; (2) control water pollution to the extent necessary to safeguard the health of bathers; and (3) maintain continued public ownership of the publicly owned shores upon which a part of the recommended Federal participation is based and their administration for public use during the economic life of the project.

Operations and results during fiscal year. New Work: None.

Condition at end of fiscal year. A LRR is under preparation by Palm Beach County for the first periodic nourishment of the Ocean Ridge segment scheduled for FY2004.

51. PINELLAS COUNTY, FL

Location. Pinellas County is on the Gulf coast of Florida, about midway of the peninsula. It extends northerly about 39 miles from the main entrance to Tampa Bay to the vicinity of the mouth of Anclote River. (See NOAA Nautical Chart No. 11411.)

Previous project. For details see page 429 of Annual Report for 1965.

Existing project. The authorized project provides for Federal participation in preserving and protecting the shores of Pinellas County, Florida, by: restoration of 5,000 feet of beach at Clearwater Beach Island; restoration of 49,000 feet of beach at Sand Key; restoration of 9,200 feet of beach at Treasure Island; construction of 600 feet of revetment at Long Key; and advance nourishment of Long Key and periodic nourishment of each island. (See Table 9-B for Authorizing Legislation.)

Estimated cost is $169,300,000 Federal and $113,100,000 non-Federal.

Local cooperation. Local interests must (a) contribute in cash the required percentages of the first costs of work provided by the Corps of Engineers, the percentages varying with the type of beach ownership; 94.1 to 50 percent of the beach restoration at Clearwater Beach; 98.1 to 50 percent of the improvement at Sand Key; 94.3 to 50 percent of the improvement at Treasure Island; and 50 percent of the first cost of the revetment at Long Key; (b) contribute in cash an amount computed in accordance with the cost sharing provision contained in P.L. 826, 84th Congress as amended by P.L. 87-874, for beach nourishment cost for the first 10 years of the project life; (c) provide lands, easements, and rights-of-way; (d) assure maintenance and repair of the stone revetment of Long Key; (e) assure periodic nourishment of the restored beaches; (f) assure public ownership of beaches; (g) assure against water

pollution; (h) hold the United States free from damages; and (i) provide beach for public use. Assurances of local cooperation were accepted March 22, 1967. Non-Federal contribution for new work is $33,729,772.

Operations and results during fiscal year. New work: Beach replenishment cost was $2,053,713, engineering and design and construction management cost $909,488 and $44,933 respectively.

Condition at end of fiscal year. Preparation of plans and specifications for next re-nourishment of Long Key and treasure Island underway. Re-nourishment scheduled for spring/summer 2004.

52. ST. JOHNS COUNTY, FL

Location. St. John's County is located about 100 miles south of the Florida/Georgia border.

Existing project. The project consists of restoration of 2.5 miles of shoreline, beginning approximately 2.7 miles south of St. Augustine Inlet, and including the City of St. Augustine Beach. The authorized project provides for initial restoration of the beach to a width of 60 feet +12 feet elevation relative to mean low water. The initial fill consisted of placement of 3,580,000 cubic yards of beach quality sand, includes six years of advanced nourishment. The project would replace sand lost due to frequent northeasters and provide storm protection to upland development. The borrow area is located at the ebb tidal shoal south of St. Augustine. The project was authorized with a 50-year project life from the start of construction. (See Table 9-B for Authorizing Legislation.)

Estimated cost is $195,800,000 Federal and $47,400,000 Non-Federal.

Local cooperation. The sponsor of this project is the St. John's County Board of Commissioners. Cost sharing for this project is 80 percent Federal and 20 percent Non-Federal. The cost sharing reflects the higher Federal percentage required to mitigate for erosion caused by the Federal navigation project at St. Augustine Harbor. PCA will be executed following completion and approval of the General Reevaluation Report. Non-Federal contribution for new work is $1,216,200.

Operations and results during fiscal year. New work: Beach replenishment cost was $5,947,901; engineering and design cost was $288,012; construction management cost was $153,346.

Condition at end of fiscal year. Contract for initial construction completed January 2003.

53. SARASOTA COUNTY, FL

Location. Sarasota County is on the Gulf coast of Florida about 30 miles south of Tampa Bay. The northern most portion of the project adjoins the Manatee County Beach Erosion Control Project on Longboat Key. The total project consists of about 5.7 miles of gulf shoreline on Longboat Key and Venice Beach.

Existing project. The authorized project provides for Federal participation in the construction of a protective beach 12,600 feet long at Longboat Key and a protective beach 29,400 feet long at Manasota Key at the City of Venice, Florida. Two borrow areas will be required. The first is located within 2 shoal areas located between 1 to 2 miles offshore of Manasota Key south of the project area. This borrow area will be supplemented by material located within the ebb tidal shoal of Big Sarasota Pass which is about 13 nautical miles north of the project beach at Venice. The project also provides periodic nourishment of the restored beach and such adjacent shoreline as may be needed and justified for life of the project. The mean tidal range is 2.1 feet. (See Table 9-B for Authorizing Legislation.)

Estimated cost is $55,200,000 Federal and $28,500,000 non-Federal. The Federal share of each periodic nourishment is 72.55 percent for Venice, and 15.4 percent for Longboat, of applicable nourishment costs.

Local cooperation. Federal participation is subject to the conditions that responsible local authorities will: (a) provide without cost to the United States all lands, easements, and rights-of-way, including borrow areas, and relocations necessary for construction of the improvements; (b) provide a cash contribution equal to 29.3 percent of the first cost of construction, subject to any credit for eligible construction costs incurred by local interests, and exclusive of costs for lands, easements, and rights-of-way, relocations, and alterations, and exclusive of the cost of fill placed behind the Erosion Control Line (ECL), the final percentage to be based on shore ownership and use existing at the time of construction; (c) provide all costs of construction for nourishment of private lands and share in the costs of construction for public lands landward of the Erosion Control Line (ECL); (d) provide a cash contribution for periodic nourishment

equal to 29.3 percent of the cost of each nourishment, such contribution to be made prior to each nourishment operation, and the final percentage to be based on shore ownership and use existing at the time of construction; (e) hold and save the United States free from damage due to the construction works, except for damages due to the fault or negligence of the United States or its contractors;(f) assure continued public ownership and administration of the shore upon which the amount of Federal participation is based; (g) provide without cost to the United States appropriate access and facilities, including parking and sanitation, necessary for realization of the public benefits upon which Federal participation is based; (h) adopt appropriate ordinances, or provide other means, to insure the intended use of the beach fill areas; (i) control water pollution to the extent necessary to safeguard the health of bathers; and (j) agrees to pay 100 percent of the operation, maintenance, and replacement and rehabilitation costs of the project, or functional element thereof. Non-Federal contribution for new work is $5,020,605.

Operations and results during fiscal year. New work: Engineering and design cost was $373,346.

Condition at end of fiscal year. The City of Venice desires re-nourishment of the project in FY 04 due to project conditions resulting from recent storms. Plans and specifications are near completion.

54. OTHER AUTHORIZED BEACH EROSION CONTROL PROJECTS

Key West, FL; Lido Key, FL; Mullet Key, FL; Virginia Key and Key Biscayne, FL were deauthorized January 1, 1990 by the WRDA of 1988, P.L. 100-676. (See Table 9-D.)

55. BEACH EROSION CONTROL ACTIVITIES UNDER SPECIAL AUTHORIZATION

Beach erosion control activities pursuant to section 103, Public Law 87-874 (Preauthorization) Reports incurring costs during the fiscal year were Fort San Geronimo, PR $5,361; Hwy 187 Pinones, PR $19,665; Puerto Nuevo Beach, PR $64,013; Tarpon Springs, FL $22,114; Veteran's Drive Shoreline, St. Thomas, VI $53,254; Boca de Cangrejos, Carolina, PR $25,154; Hwy 102, Mayaguez, PR $31,463.

Beach erosion control activities pursuant to section III, Public Law 90-433, Mitigation of Shore Damages Attributable to Navigation Projects.

No costs were incurred under the above authorization.

Shoreline Erosion Control Development and Demo Program pursuant to Section 227, Public Law104-303.

Cost this fiscal year: $26,869.

Beach erosion control activities pursuant to Shoreline Erosion Control Act of 1074, Public Law 93-251.

No costs were incurred under the above authorization.

Flood Control

56. CEDAR HAMMOCK (WARES CREEK), FL

Location. The project area is located in Bradenton and unincorporated Manatee County on the southwest side of Peninsular Florida.

Existing project. The project provides for clearing and snagging from approximately 500 feet upstream of Manatee Avenue bridge and extending 17th Avenue West; trapezoidal grass-lined channel, 1V:2H side slopes, 26-foot-bottom width from 17th Avenue West to 21st Avenue West; Vertical Sheet Pile Wall channel from just upstream of 21st Avenue West to 14th Street West (B.R. 41) with a 40-foot-bottom; and trapezoidal grass-lined channel, 1V:2H side slopes, 26-foot-bottom width from upstream of the 14th Street West (B.R. 41) and extending to just downstream of 44th Avenue West (Cortez Road) bridge. (See Table 9-B for Authorizing Legislation.)
Estimated cost is $12,600,000 Federal and $6,700,000 non-Federal.

Local cooperation. In accordance with the cost sharing and financing concepts reflected in WRDA 1986, the sponsor must provide lands, easements, rights of way, and borrow and excavated or dredged material disposal sites; modify or relocate utilities, roads, bridges, and other facilities where necessary for the construction of the project; and pay 10.06 percent of the costs allocated to flood damage reduction during

construction. Non-Federal contribution for new work is $227,901.

Operations and results during fiscal year. New Work: Engineering and design cost was $530,395.

Condition at end of fiscal year. The sponsor has decided to proceed with the real estate surveys prior to signing PCA.

57. DADE COUNTY, FL

Location. Dade County is on the southeast coast of Florida. Project area consists of that part of the Atlantic shoreline of the county from Government Cut north to Bakers Haulover Inlet and at Haulover Beach Park. (See NOAA Nautical Chart No. 11466.)

Existing project. Project provides for a protective and recreational beach having a dune at elevation 11.5 feet and a level berm 50 feet wide at elevation 9 feet, mean low water, for beach erosion control and hurricane protection between Government Cut and Bakers Haulover Inlet; a protective and recreational beach with a berm elevation of 9 feet for beach erosion control at Haulover Beach Park; and Federal participation in the initial construction and in periodic nourishment of both the above reaches for the first 10 years of project life. Plane of reference is mean low water. Mean range of tide in the area is 2.5 feet. Project was authorized by Flood Control Act of 1968 (H 335/90/2).

Estimated cost of the project is $173,400,000 Federal cost and $157,700 non-Federal cost.

Local cooperation. Local interests must (a) contribute for the first cost of the work: between Government Cut and Bakers Haulover Inlet amounts ranging from 60.2 percent of the cost of the fill within the project limit with existing shorefront ownership, and 100 percent of the cost of fill required landward of the project limit; and for the work at Haulover Beach Park, contribute 21.3 percent of the entire first cost excluding costs for lands, easements, rights-of-way, relocations, and pre-project work, but including credit for pre-project work; (b) contribute in cash for the first 10 years of project life, amounts ranging from 88.9 percent of the nourishment cost for the beach, with existing ownership, to 60.7 percent with public ownership, and the entire maintenance cost for dune, all between Government Cut and Bakers Haulover Inlet; (c) provide all lands and rights-of-way; (d) hold United States free from damages; (e) assure continued public ownership and use of the shore upon which the amount of Federal participation is based; (f) assure maintenance of the groin, and after 10 years of project life, periodic nourishment of the protective beach and maintenance of the dune during the economic life of the project; (g) assure that water pollution will not be permitted; (h) prevent removal or relocation by man of fill from the beach berm and dune; (i) prevent the erection of barriers to the littoral movement of material that would interfere with the nourishment of the beach; (j) maintain at the parks qualifying for 70 percent Federal participation a zone that excludes permanent human habitation; (k) at least annually inform interests affected that the project will not provide complete protection from a hurricane tide level equal to or higher in elevation than that of the hurricane of September 1926; and (1) establish in public ownership for public use the beaches within project limits as a requirement for Federal participation in the allocated beach erosion control costs of improvement of shores presently in private ownership. Assurances of local cooperation were accepted January 16, 1973. A supplemental agreement for Bal Harbour portion was approved June 30, 1976. Non-Federal contribution for new work was $52,552,842.

Operations and results during fiscal year. New work: Lands and damages $74,252, re-nourishment contract cost was $1,966,674. Engineering and design and construction management cost $487,416 and $108.360, respectively.

Condition at end of fiscal year. The contract for construction of the Sunny Isles Modification was awarded in September 2000 and completed in spring 2003 at a cost of $19,224,000. The contract consisted of construction of two offshore breakwaters, a transitional beach fill along 1,500 feet of Golden Beach, and re-nourishment of about 2.5 miles at Sunny Isles. An option for that contract was awarded for North Miami Beach in January 2001. Engineering and design is continuing for preparation of plans and specifications for award of a re-nourishment contract for North Miami Beach (Test Beach) in fall 2005. A request for proposals for this contract will allow domestic upland and domestic offshore sources of beach fill to provide bids.

58. DADE COUNTY, NORTH OF HAULOVER BEACH, FL

Location. On the southeast coast of Florida. Project area consists of that part of the Atlantic shoreline

extending 2.5 miles north of Haulover Beach Park. (See NOAA Nautical chart No. 11466.)

Existing project. The existing shore protection project for Dade County provides for Federal participation in the cost of construction of a beach fill for the purpose of erosion control and hurricane protection along 9.3 miles of shore between Government Cut and Bakers Haulover Inlet and for the construction of a beach fill for the purpose of erosion control along the 1.2 miles of shore fronting Haulover Beach Park and provides for protection and nourishment of 2.5 miles of beach shore north of Haulover Beach Park and for extension of the period of Federal participation from 10 years to the life of the project. (See Table 9-B for Authorizing Legislation.)

Local cooperation. Consistent with the cost-sharing and financing concepts agreed to by the administration and Senate Majority Leadership, local interests will be required to: provide lands, easements, and rights-of-way and relocations; pay 50 percent of the separable and joint costs allocated to recreation; pay 35 percent of the cost allocated to storm damage prevention; hold the United States free from damages; control water pollution; and furnish assurances that they will maintain continued public ownership of the shore upon which the amount of Federal participation is based during economic life of project. Assurances of local cooperation have been requested from local sponsors. Non-federal contribution for new work was $8,082,927.

Operations and results during fiscal year. New work: None.

Condition at end of fiscal year. No new work scheduled.

59. FOUR RIVER BASINS, FL

Location. The Four River Basins area covers about 6,000 square miles within 14 counties in central and southwest peninsular Florida. Project includes all or part of the four mainstream basins -- the Hillsborough, Oklawaha, Withlacoochee, and Peace Rivers -- and all of three smaller coastal basins north of Tampa, Florida, drained by the Pithlachascotee and Anclote Rivers and Lake Tarpon.

Existing project. The authorized project provided for improvements for control of floods and drainage, and for conservation through construction of necessary canals, levees, reservoirs, and control structures. More specifically, the project provided for: *Green Swamp Area* -- a conservation area and 3 storage reservoirs with necessary canals and control structures; *Hillsborough River* -- 4 flood-storage reservoirs, with necessary channels, control structures and levees; *Oklawaha River* --a levee on the north shore of Lake Apopka, improvement of parts of the river channel and a west bank levee below Moss Bluff lock and dam, and replacement of the lock and dam; *Withlacoochee River* -- one flood-storage reservoir with outlet canals and control structures; *Peace River* -- Peace Creek canal and control structures and improvements to the existing water control and drainage features; *Gulf Coastal Areas*-Lake Tarpon; outlet canal and control structure; Pithlachascotee River: reservoir with outlet canals and control structures. (See Table 9-T on Moss Bluff Lock.) (See Table 9-B for Authorizing Legislation.)

Estimated cost for new work is $192,500,000 Federal and $169,800,000 non-Federal.

Local cooperation. Local interests must furnish all lands, and rights-of-way; provide all alterations or replacements of public and private utilities, roads, bridges (except railroad bridges), etc.; hold the United States free from damages; operate and maintain all project works after completion; construct and maintain such associated works as are necessary to realize benefits made available by the project works; and contribute in cash 17 percent of the first cost of construction and 50 percent of recreation costs. Non-Federal contribution for new work is $14,095,058.

Operations and results during fiscal year. New work: None.

Condition at end of fiscal year. Construction of the project commenced April 18, 1966 and the scheduled work is 98 percent complete. Flatwoods Phase II has not been funded.

60. PORTUGUES AND BUCANA RIVERS, PR

(This project authorized as Lago de Cerrillos, Lago de Portugues, and Channel Improvement at Ponce.)

Location. Portugues and Bucana Rivers originate on the southern slopes of Cordillera Central divide of

Puerto Rico and flow from this central ridge of the island to the Caribbean Sea. Their drainage areas are 22.6 and 31.4 square miles, respectively. Ponce, the second largest city in Puerto Rico, is located in the lower coastal area along Portugues River and is the only urban community in the two basins.

Existing project. The authorized project provides for 2 multiple-purpose reservoirs for flood control, water supply, general recreation, and fish and wildlife enhancement -- one on Portugues River and the other on Cerrillos River, a tributary to the Bucana River; enlargement of about 5.7 miles of the Bucana River, with an additional 0.2 mile long tieback levee at the upstream terminus of the improvement; enlargement of 2.1 miles of the Portugues River, with an additional 0.5 mile of tieback levee at the upstream terminus of the improvement; and a 1.3 mile diversion channel connecting Portugues River to lower Bucana River. (See Table 9-B for Authorizing Legislation.)

Estimated cost of the project is $434,000,000 Federal and $145,500,000 non-Federal.

Local cooperation. Local interests must provide all lands, easements, and rights-of-way; hold the United States free from damages; operate and maintain all project works after completion; repay construction cost allocated to water supply in accordance with Water Supply Act of 1958; pay one-half of the separable cost allocated to recreation and fish and wildlife enhancement; prohibit discharge of inadequately treated sewage and other pollutants into the reservoir; and prevent encroachment on downstream channels. Assurances of local cooperation have not been completed, except for Cerrillos Reservoir, which was signed March 15, 1982. Non-Federal contribution for new work was $10,293,201.

Operations and results during fiscal year. New work: Real estate cost was $669. Construction contract for channels and canals $-222,704,Recreation cost was $1,500,691. Buildings, grounds, and utilities cost was $449,172. Engineering and design and construction management cost $4,033,856 and $208,441, respectively.

Condition at end of fiscal year. Partial Cerrillos Dam Lake Recreation Notice to Proceed contract granted in FY 2001, and the new completion schedule is June 2004. Remaining Lake Recreation is scheduled for an FY 2005 award. Portugues Schoal Removal Phase II new schedule for award is FY 2006. New Portugues Dam contract schedule for re-advertisement in January 2005 with an award date in April 2005. Post authorization change report is scheduled for approval by April 2004. Cost allocation report for Cerrillos dam is scheduled for completion and possible approval by September 2004.

61. RIO DE LA PLATA, PR

Location. The Rio de La Plata basin is located about 11 miles west of the San Juan metropolitan area along the north coast of Puerto Rico. The Rio de la Plata basin drains an area of 240 square miles through several towns and villages into the Atlantic Ocean.

Existing project. The Water Resources Development Act of 1990 authorized the project. It would provide 100-year protection upstream of PR Highway 2 and SPF protection down stream and calls for construction of 7.6 miles of levees. The plan includes the replacement of 3 bridges, recreation facilities, and mitigation for the loss of environmental habitats. The benefit-cost ratio is 1.6. (See Table 9-B for Authorizing Legislation.)

Estimated cost is $69,000,000 Federal and $31,800,000 Non-Federal.

Local cooperation. The project cooperation agreement was executed on 7 June 1995. The Commonwealth of Puerto Rico, Department of Natural and Environmental Resources, is the body authorized to represent the local interest and is responsible for complying with the following requirements: (1) provide a cash contribution equal to five percent of total project costs; (2) provide all lands, easements, rights-of-way, relocations, and dredged material disposal areas; (3) provide an additional cash payment when the sum of both items (1) and (2) are less than 25 percent of total project costs; (4) operate and maintain the project after completion, including accomplishment of any needed repairs or rehabilitation's of any of its components; (5) hold and save the United States free from damages due to the construction or subsequent maintenance of the project, expect due to damages due to the fault or negligence of the United States or its contractors; (6) prevent future encroachments which might interfere with proper functioning of the project; (7) participate in and comply with applicable Federal flood plain management and flood insurance programs; and (8) (a) Provide guidance and leadership to prevent unwise future development in the flood plain; and (b) recreation local cooperation requirements: (1) provide one-half of the separable first cost of post authorization planning and construction of recreation facilities and provide all land required for recreation; and (2) all costs and full responsibility for the operation,

maintenance, replacement, and management of recreation lands and facilities. Non-Federal contribution for new work was $834,088.

Operations and results during fiscal year. New work: Engineering and design cost was $529,325.

Condition at end of fiscal year. PED was completed September 1994 with approval of plans and specifications for first contract. Land acquisition process has been initiated and will continue through FY04. Award of the first contract for the lower reach of the channel is scheduled for award in September 2004.

62. RIO GRANDE DE ARECIBO, PR

Location. The city of Arecibo is located on the northern coast of Puerto Rico, approximately 40 miles west of San Juan. The Rio Arecibo Basin covers a 272 square mile area and includes towns of Utuado, Jayuya, and Adjuntas.

Existing Project. The authorized project for flood control includes channel improvements, a floodwall, and a levee along the Arecibo River; a levee along the Tanama River; and a plug, channel improvements, and a diversion channel along the Santiago River. (See Table 9-B for Authorizing Legislation.)

Estimated cost of the project is $15,800,000 Federal and $12,100,000 non-Federal.

Local cooperation. Local interests must provide lands, easements, rights of way, and dredged material disposal areas; modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project; pay one-half of the separable costs allocated to recreation and bear all costs of operation and maintenance, and replacement of recreation facilities; pay 8.52 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, and replacement of flood control structures; and has also agreed to make all required payments concurrently with project construction. Non-Federal contribution for new work is $0.

Operations and results during fiscal year. New work: Engineering and design cost was $1,302,885.

Condition at end of fiscal year. Plans and specifications are being finalized. Land acquisition by sponsor is ongoing. Award of the first construction contract is scheduled for August 2004.

63. RIO GRANDE DE LOIZA, PR

Location. The Rio Grande De Loiza basin, located in the eastern central part of Puerto Rico, is the island's largest basin. It comprises the coastal plain of Carolina and the metropolitan area of Caguas in the interior valley. The project area consists of 530 square kilometers draining into Lake Loiza. It includes the city of Caguas and the town of Gurabo where over 4,100 families and numerous public buildings and commercial facilities are affected by flooding.

Existing project. The authorized project would provide channels, levees, and floodwalls for flood protection for the highly urbanized areas of the city of Caguas and the town of Gurabo. It consists of 1.8 kilometers of gabion-lined channel, 1.9 kilometers of concrete channels, and a debris basin for Rio Caguitas; 1.3 kilometers of concrete channels, 1.0 kilometers of earth channel, 0.6 kilometers of gabion-lined channel, 1.0 kilometers of levees, and a debris basin for Rio Bairoa; 2.8 kilometers of levees and floodwalls for Rio Grande De Loiza; and 0.7 kilometers of pilot channel and 1.8 kilometers of levees for Rio Gurabo. It also provides for recreation bikeway/pedestrian trails at Rio Grande De Loiza and Rio Gurabo levees. The average level of protection at Rio Caguitas and Rio Bairoa is estimated at 70 years and 220 years, respectively. The average level of protection for the remaining reaches is estimated at 100 years. (See Table 9-B for Authorizing Legislation.)

Estimated cost is $157,600,000 Federal and $55,900,000 non-Federal.

Local cooperation. In accordance with the cost sharing and finance concepts reflected in the Flood Control Act of 1970 and the WRDA 1986, the sponsor must provide lands, easements, and rights-of-way; modify or relocate buildings, utilities, roads, bridges, and other facilities, where necessary in the construction of the project; pay 6.32 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operations, maintenance, and replacement of flood control facilities; and pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.

Operations and results during fiscal year. New work: Engineering and design cost was $222,894.

Condition at the end of fiscal year. Completed the LRR for entire project and initiated plans and specifications for the first construction contract, the lower reach of the Caguitas segment. PCA package is also being developed.

64. RIO MANATI, BARCELONETA, PR

Location. The project area consists of the Rio Grande De Manati basin, which is located in the north-central coastal region of Puerto Rico at the town of Barceloneta.

Existing project. The recommended plan consists of providing a 5,300-meter long ring levee, two pilot channels totaling 1,620 meters in length, and minimum interior drainage facilities. Project implementation requires acquisition of seven residential structures, relocation of one boat ramp, three highway ramps, and one agricultural road ramp, and relocation of existing utilities impacted by the levee at four locations. The project is designed to protect against the 100-year flood and would reduce 92 percent of the total annual flood damages for the flood prone areas of the town of Barceloneta. The recommended plan maximizes the net national economic development benefits. (See Table 9-B for Authorizing Legislation.)

Estimated cost is $10,700,000 Federal and $5,600,000 non-Federal.

Local cooperation. In accordance with the cost sharing and financing concepts reflected in the Chief of Engineers Reported dated 22 January 1999 and WRDA '99, the non-Federal sponsor must provide lands, easements, rights-of-way, and dredged material disposal areas; modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project; and pay 15.95 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, and replacement of flood control structures. The non-Federal sponsor has agreed to make all required payments concurrently with project construction.

Operations and results during fiscal year. New work: Real estate cost was $18,624; Levees and floodwalls $4,483,903; Engineering and design cost was $554,259; Construction Management cost was $568,282.

Condition at the end of fiscal year. Construction contract was awarded September 2001 and is scheduled for completion April 2004.

65. RIO PUERTO NUEVO, PR

Location. The Rio Puerto Nuevo drainage basin is located within the San Juan Metropolitan Area along the northern coast of Puerto Rico. The basin joins the southeast side of San Juan Harbor and extends south and up into the foothills of the central mountains of Puerto Rico. The Rio Piedras, Rio Puerto Nuevo, Quebrada Margarita, Quebrada Josefina, Quebrada Dona Ana, Quebrada Vista, and Quebrada Guaracanal traverse the basin.

Existing project. The authorized project for flood control includes improvements to 11.2 miles of the existing channel of Rio Puerto Nuevo and Rio Piedras and five tributaries of the Rio Puerto Nuevo drainage basin. The 25 square mile drainage basin drains into San Juan Harbor. (See Table 9-B for Authorizing Legislation.)

Estimated cost of the project is $338,300,000 Federal and $118,500,000 non-Federal.

Local cooperation. Local interests must provide cash contribution equal to five percent of the total project costs; provide LERRD (except railroad bridge alterations); provide an additional cash payment when the sum of cash and LERRD are less than 25 percent of the total project costs; operate and maintain project works after completion; hold and save the United States free from damages; prevent future encroachments; participate and comply with Federal flood plain management and flood insurance programs; provide guidance and leadership to prevent unwise future development in the flood plain; provide one-half of the separable first cost of post authorization planning and construction of recreation facilities; and all costs and full responsibility for operations, maintenance, replacement, and management of the recreation lands and facilities. Non-Federal contribution for new work was $4,019,000.

Operations and results during fiscal year. New work: Real estate cost was $83,449. Roads, Railroads, and Bridge costs were $4,427,758. Channels and canals cost was $10,970,181. Engineering and design cost was $1,796,281. Construction management cost was $843,810.

Condition at end of fiscal year. Contract No.1 (first 1.7 miles of channel) is scheduled for completion in January 2004. Contract #2A (Margarita Earthen Channel, next 1.3 miles of channel) was terminated and will be re-advertised as resumption of 2A October 2006 with award in November 2006. Contract 1A was awarded in April 2002 and is scheduled for completion in FY 2004. Contract 2AA (Margarita Levee and Bechara Drainage Works) was awarded in FY03 and work is underway. Funding limitation will impact completion date by two years. Contract 2D1 was awarded in FY03 and is underway

66. INSPECTION OF COMPLETED FLOOD CONTROL PROJECTS

Features transferred to the Central and Southern Florida Flood Control District and Southwest Florida Water Management District were inspected quarterly during the fiscal year at a total cost of $89,523.

67. OTHER AUTHORIZED FLOOD CONTROL PROJECTS

(See Table 9-E.)

68. FLOOD CONTROL WORK UNDER SPECIAL AUTHORIZATION

Flood control activities pursuant to section 205, Public Law 685, 84th Congress, as amended (Preauthorization).

(See Table 9-V.)

Emergency flood control activities -- repair, flood fighting, and rescue work (Public Law 99, 84th Congress, and antecedent legislation).

Federal costs for the fiscal year were $511,857 for the Disaster Preparedness Program. Rehabilitation cost was $325,641.

Emergency stream bank and shoreline protection activities pursuant to Section 14, Public Law 526, 79th Congress as amended (Preauthorization).
Federal cost for the fiscal year was Coordination Account $6,037; Los Carolinas Bridge, Caguas, PR $781; Police Station and Sewer line, Trujillo Alto, PR $106,479; Rio Matilde, PR $172,489.

General Investigations

69. SURVEYS

Costs during the fiscal year were: navigation studies $658,956; flood damage prevention studies $883,548; shoreline protection studies $267,170; special studies $25,965; miscellaneous activities $34,928 and coordination with other agencies and non-Federal interests $322,536 for a total cost of 2,193,103.

70. COLLECTION AND STUDY OF BASIC DATA

The requirement for preparation of regular flood plain information studies has been rescinded. FPI studies that deal with land use changes will continue to be prepared. Flood Plain Management Services $21,585; Technical Services $36,162; Quick Responses $2,963; Florida Statewide Evacuation $39; Seminole Floodway $20,295 SS – Mass Management Tool for the Islands $7,446; Southeast Florida Hurricane Evacuation studies $20,000; SS – MMT Caribbean Hurricane Evacuation Studies Management Support $9,695; SS MMT Caribbean Hurricane Evacuation Studies $68,110; SS – American Samoa $11,658, for a total cost of $197,953.

71. CONTINUATION OF PLANNING AND ENGINEERING

Navigation cost was Ponce de Leon Inlet $729. Beach erosion cost was Brevard County $2,109. Local protection cost was Rio Nigua de Salinas, PR $4,001. Total cost for Continuation of Planning and Engineering was $6,839.

72. ADVANCE ENGINEERING AND DESIGN

Navigation cost was, Nassau County $2,647, St. Petersburg Harbor, FL $44,634 and Tampa Harbor Big Bend, FL $48,837. Flood control cost was Guanajibo River, PR $28,873, Rio Nigua at Salinas, PR $32,746 and Cedar Hammock (Wares Creek), Fl $1,368. Total cost for Advance Engineering and Design was $159,105.

General Regulatory

73. PERMIT EVALUATION (R&H ACT of 1899; CWA of 1977; MPRSA of 1972)

Location. Navigable waters of the United States, including tributary systems, headwaters and isolated waters, and ocean waters to the limits of the territorial seas.

Existing Program. The program evaluates permit applications for work in navigable waters (dredging, filling, and other structures) of the United States, and the transportation of dredged material to the oceans for ocean disposal. Geographic coverage includes Florida, Puerto Rico, and the U.S. Virgin Islands. Decision making criteria consist of the public interest review, Section 404(b)(1) Guidelines, and ocean dumping criteria.

Local Cooperation. The joint application arrangements with Florida, Puerto Rico, and the U.S. Virgin Islands continue in place. The Florida State Programmatic General Permit is also still in place, but its usefulness is severely diminished by manatee litigation. We continue to participate in interagency coordination with our state and commonwealth regulatory counterparts. We are working to reinitiate regular federal agency coordination meetings to improve communications and partnering. We are in the final stages of implementing a transportation streamlining process with FDOT and FHWA. We are currently restructuring our workforce to emphasize the evaluation of permit applications on a watershed basis.

Operations and results during fiscal year. Permit evaluation cost was $9,808,400.

74. ENFORCEMENT (R&H ACT of 1899; CWA of 1977; MPRSA of 1972)

Existing program. The program takes appropriate enforcement action against both unauthorized work requiring a permit and noncompliance findings on issued permits. Operation of the program is continuing to make increased use of alternative dispute resolution processes to remediate violations. Close coordination with and cooperation of Department of Justice continues, with development of consent orders and fines as appropriate.

Local cooperation: We have re-opened discussions with EPA to get some of their staff co-located with us to take advantage of their administrative order authority.

Operations and results during fiscal year. Cost incurred this fiscal year for enforcement was $885,779.

75. STUDIES (R&H Act of 1899)

Location. Navigable waters of the United States in Florida, Puerto Rico, and the U.S. Virgin Islands.

Existing program. This program conducts studies to determine geographic extent of navigable waters of the United States, and establishment of danger or restricted zones in these waters.

Local cooperation. Additional activity in identifying and establishing restricted zones, in light of increased terrorist concerns. We have also been working closely with FWS, USCG, and FFWCC to establish standard manatee speed zones and sanctuary areas.

Operations and results during fiscal year. Studies cost was $700; Environmental inspection statement cost was $41,711; other Navigation Regulations $346; Administrative Appeals $1,958.

Environmental Improvement Projects

76. CENTRAL AND SOUTHERN FLORIDA, INCLUDING COMPREHENSIVE EVERGLADES RESTORATION PLAN

Location. The C&SF project is generally located within the southeastern 18 counties of Florida covering an area of about 15,200 square miles. It is comprised of the Upper St. Johns River basin in the northeastern section of project, Kissimmee River basin in central section north of the Lake Okeechobee-Everglades area in the central and southwestern section, and the east coast Everglades area in southeastern section. The CERP area consists of the lands and waters within the boundary of the South Florida Water Management District, including the Everglades, the Florida Keys, and the contiguous near-shore coastal waters of South Florida.

Previous projects. Completed works for control of Lake Okeechobee were included in and constructed under the navigation project for Okeechobee Waterway, FL (formerly Caloosahatchee River and Lake Okeechobee drainage area, FL) and under provisions of River and Harbor Acts of July 3, 1930 and August 30, 1935. For further information, see Annual Reports for 1948 and 1949.

Existing projects. The authorized project is for flood relief and water conservation and provides principally for: an east coast protective levee extending from the Homestead area north to the eastern shore of Lake Okeechobee near the St. Lucie Canal; three conservation areas for water impoundment in the Everglades area west of the east coast protective levee with control structures to effect transfer of water as necessary; local protective works along the lower east coast; encirclement of the Lake Okeechobee agricultural area by levees and canals; enlargement of portions of Miami, North New River, Hillsboro, and West Palm Beach Canals; enlargement of the existing Lake Okeechobee levees and construction of new levees on the northeast and northwest shores of the lake; increased outlet capacity for improved control of Lake Okeechobee; floodway channels in the Kissimmee River basin, with suitable control structures to prevent over-drainage; an interrelated system of canals, levees, pumping stations, and structures in southwest Dade County to control water levels; and facilities for regulating floods in Upper St. Johns River basin; a system of canals and control structures for gravity drainage of Martin County and distribution of available water supplies to portions of Martin and St. Lucie Counties; and works to improve the supply, distribution, and conservation of water resources in central and southern Florida, including the Lake Okeechobee agricultural area, Everglades National Park, and other related areas. The project will provide water control and protection from recurrence of the devastating floodwaters from the Everglades and local sources, for the highly developed urban area along the lower east coast of Florida and for the productive agricultural areas around Lake Okeechobee (including towns around the lake), in the Upper St. Johns and Kissimmee River basins, and in South Dade County. The project includes a total of 990 miles of levees, 978 miles of canals, 30 pumping plants, 212-floodway control and diversion structures, 56 railroad bridge relocations, and 2 highway bridge relocations. The project also provides that upon completion, local interests assume operation and maintenance of all completed works except levees, channels, locks, and control works for regulation of Lake Okeechobee and the main control structures of conservation areas, which will be operated and maintained by the United States. The principal features of the hurricane gates, constructed under previous projects for Okeechobee Waterway and maintained under existing project since July 1, 1950, are set forth in Table 9-Q. Also, see Table 9-N for principal features of locks and dams. (See Table 9-B for Authorizing Legislation.)

Estimated cost for new work is $2,409,100,000 Federal and $1,742,500,000 Non-Federal, exclusive of river and harbor funds expended on previous projects.

The Comprehensive Everglades Restoration Plan is the ecosystem restoration component of the Central and Southern Florida Project. The authorized project shall develop a comprehensive plan for the purpose of restoring, preserving, and protecting the South Florida Ecosystem. The comprehensive plan shall provide for the protection of water quality in, and the reduction of the loss of fresh water from the Everglades. The comprehensive plan shall include such features as are necessary to provide for the water-related needs of the region, including flood control, the enhancement of water supplies, and other objectives served by the Central and Southern Florida Project. The comprehensive plan shall be developed in consultation with the Task Force.

Projects identified for design and construction of any Central and Southern Florida Project that are authorized may use funds that are available, provided that they will accelerate the restoration, preservation, and protection of the South Florida ecosystem; will be generally consistent with the conceptual framework specified in the report entitled “Conceptual Plan for the Central and Southern Florida Project Restudy”; and be compatible with the overall authorized purposes of the Central and Southern Florida Project.

Local Cooperation. (See Table 9-R for local cash contribution.) Local interests must also: provide lands, rights-of-way, and spoil disposal areas; hold the United States free from damages; bear the cost of maintenance and operation of all works except those having to do with regulation of Lake Okeechobee and the main control structures of conservation areas; construct and maintain lateral drainage facilities; prohibit encroachment on flood-carrying capacity of the improved channels; and assume cost of all new highway bridges, relocations of existing bridges and alterations to utilities incident to construction of the project. In addition, for small boat navigation channels, local interests must provide, maintain, and operate adequate public landings, sanitary and access facilities, and establish regulations prohibiting discharge of pollutants into the waters of the locks and channels by users thereof. Assurances of local cooperation have been accepted by the District Engineer for all items of work authorized to date.

The Comprehensive Plan shall be developed in cooperation with the non-Federal sponsor and in consultation with the Task Force. The non-Federal

cost share is 50%, except for water quality, which is 100% with the exclusion of that needed for Everglades restoration, for which the share is 50%. The value of lands or interests in land acquired by non-Federal interests will be included in the total cost of the activity and credited against the non-Federal share of the cost of the activity.

Operations and results during fiscal year. (See Table 9-S for work accomplished.)

Operations and care.

a. Features completed under previous navigation project for Okeechobee Waterway and being maintained under this project are: a levee about 70 miles long following in general the south shore of Lake Okeechobee and a north shore levee 15.8 miles long; spillways at Ortona and St. Lucie Locks; 5 hurricane gates; and 16 spillways along St. Lucie Canal.

b. Features completed under existing project that are to be maintained with operation and maintenance funds are: (1) Levees 47, 48, 49 and 50 -- total length 63 miles and enlargement of existing levees L-D1, L-D2, L-D3, L-D4, and L-D9, (2) spillway structures S-10, S-11, S-12, S-18C, S-77, and S-78 (3) C-43, Section 4 (Caloosahatchee River), and (4) W.P. Franklin Lock and Dam.

In addition to the actual facilities listed above it is necessary under operation and maintenance to continue meteorological studies, water level records, stream gauging stations, etc., for proper regulation of the level of Lake Okeechobee and storage of water in Conservation Areas 1, 2 and 3.

Corps of Engineers - The Corps of Engineers operates and maintains the major outlets to Lake Okeechobee and Water Conservation Area Nos. 1, 2A and 3A in central and southern Florida.

South Florida Water Management District - SFWMD is responsible for operation and maintenance of the project facilities, including major pumping stations, spillways, locks (except on Okeechobee Waterway), levees and culverts.

Condition at end of fiscal year. Continuing preparation of the Water Preserve Area, Indian River Lagoon, Southwest Florida, and Florida Bay/Florida Keys feasibility studies. Engineering and design is underway for Upper St. Johns, South Dade, C-51, and Manatee Pass Gates. Several PMP have been initiated and are ongoing under the Comprehensive Everglades Restoration Plan (CERP). PIR and PPDR will be continued under CERP in FY 04. The CERP RECOVER efforts are also underway. (For status of work under construction at the end of the fiscal year see Table 9-P.)

77. EVERGLADES & SOUTH FLORIDA ECOSYSTEM RESTORATION

Location. The area consisting of the lands and waters within the boundary of the South Florida Water Management District, including the Everglades, the Florida Keys, and the contiguous near-shore coastal waters of South Florida.

Existing Project. This project is called the Critical Restoration Projects Program. If the Secretary of the Army determines, in cooperation with the non-Federal sponsor and the Task Force, that a restoration project for the South Florida ecosystem will produce independent, immediate, and substantial restoration, preservation, and protection benefits, and will be generally consistent with the conceptual framework specified in the "Conceptual Plan for the Central and Southern Florida Project Study" published by the Governor's Commission for a Sustainable South Florida, the Secretary shall proceed expeditiously with the implementation of the restoration project. (See Table 9-B for authorizing legislation.)

Estimated cost of the project $75,000,000 Federal and $140,000,000 non-Federal.

Local Cooperation. The non-Federal share of the cost of work performed under this program is 50%. Congress has authorized $75 million to be appropriated to the Department of the Army to pay the Federal share of the cost. The Federal share of the cost of carrying out any 1 project is limited to $25 million. The cost of features to improve water quality essential to Everglades restoration will be cost shared as above; the cost to improve water quality for other purposes will be solely the responsibility of the local sponsor. Credit may be provided to a non-Federal sponsor for the reasonable costs of any work that has been performed or will be performed in connection with a study or activity if the non-Federal sponsor's work is necessary, will substantially expedite completion of a critical restoration project, and is granted pursuant to a project-specific agreement that prescribes the terms and conditions of the credit or reimbursement.

Regardless of the date of acquisition, the value of lands or interests in land acquired by non-Federal interests

shall be included in the total cost of the activity and credited against the non-Federal share of the cost of the activity, given that the lands proposed for credit are compatible with a specific project in this program. The operation and maintenance of projects will be a non-Federal responsibility with the exception of the Seminole Big Cypress Water Conservation Plan, for which the operations and maintenance costs will be split 50-50 between the Seminole Tribe and the U.S. Army Corps of Engineers. Non-Federal contributions amount to $4,285,110.

Operations and results during fiscal year. New work: Lands, -$1,988,000; reservoirs $1,327,000; channels and canal cost was $355,000. Engineering and design cost was $2,916,000. Construction management cost was -$4,000.

Condition at end of fiscal year. This program consists of the following nine projects:

- East Cost Canal Structures: Complete
- Tamiami Trail Culverts: Design is complete. The sponsor is preparing to advertise the first construction contract.
- Western C-11 Water Quality Treatment: The Phase 1 pump station construction is complete. The Phase 2 spillway construction Notice to Proceed has been issued.
- Florida Keys Carrying Capacity Study: Complete.
- Seminole Big Cypress Water Conservation Plan: The Phase 1 Canal System construction is complete. The Phase 2 design is 60% complete. The Corps plans to award the Phase 2 construction contract in Summer 2004.
- Southern CREW: Under construction.
- Lake Okeechobee Water Retention Areas: The design is complete. The Corps is preparing to advertise for construction bids.
- Ten Mile Creek: The Corps has awarded the construction contract.
- Lake Trafford: The design is complete. The Sponsor is preparing to advertise the first construction contract

78. FLORIDA KEYS WATER QUALITY IMPROVEMENTS

Water Quality Improvements pursuant to Section 109, Public Law 106-554.

Location. The Florida Keys Water Quality Improvements Program study area lies within the Florida Keys National Marine Sanctuary, which includes 2,800 square nautical miles of near shore waters beginning just south of Miami, Florida and extending to the Dry Tortugas. The Sanctuary is part of a complex ecosystem that includes the Everglades, Florida Bay and adjacent areas. The Keys themselves are a chain of more than 800 islands that extend approximately 220 miles southwest from the southern tip of the Florida peninsula and through the sanctuary. The Florida Keys Water Quality Improvements Program is targeting the portion of the Keys from Key Largo to Key West, approximately 110 miles.

Existing Project. Under the authority of Public Law 106-554, date December 21, 2000, the Corps of Engineers is authorized to provide technical and financial assistance to carry out projects for planning, design, and construction of treatment works to improve water quality in the Florida Keys As a result of concerns regarding the water quality in the Florida Keys, the Monroe county Year 2010 Comprehensive Plan mandated that nutrient loading be reduced in the Keys marine ecosystem by the year 2010. In 1998, The Governor issued Executive Order 98-309, which directed both local and state agencies to coordinate with Monroe County to implement the Year 2010 Comprehensive Plan. This includes the elimination of cesspits, failing septic systems and other substandard on-site sewer systems.

Estimated cost: The total cost of the program is in excess of $600M. However, the Federal Government has been authorized to spend up to $100M. The non-Federal share will be $53.8M.

Local Cooperation. The South Florida Water Management District, an agency of the State of Florida, is the project sponsor and cost-sharing partner, and has expressed its intent to be the project sponsor. However it should be noted that they will not be directly funding the non-Federal portion of the project. They will be coordinating with the various municipalities in Monroe County who will be paying for the non-Federal share.

Operations and results during fiscal year. $531,726
Condition at the end of the fiscal year. Currently, the Draft Programmatic Environmental Impact Statement is being readied for distribution and public review. By the end of the fiscal year we will have a Record of Decision on the EIS and will be poised to move forward with the construction of the first sewer project.

79. KISSIMMEE RIVER, FLORIDA

Location. The Kissimmee River Basin comprises 3,013 square miles, and extends from Orlando southward to Lake Okeechobee, the second largest freshwater lake in the United States. The area is bounded on the north by the lakes of the Orlando area, on the west by the Peace River Basin, on the south by Lake Okeechobee, and in the east by the Upper St. John's and the Taylor Creek-Nuddin Slough Basins. The watershed is about 105 miles long and has a maximum width of 35 miles.

Existing Project. The purpose of this project is to implement the Level II Back-filling plan, as developed by the South Florida Water Management District, for restoration of the Kissimmee River and flood plain ecosystem. It is expected that this restoration project will restore the ecological integrity of the river system and provide for environmental improvements through modification of operations for Lake Kissimmee, Cypress, and Hatchineha. The project will include canal and/or structure improvements and real estate acquisition. Construction will include the backfilling of approximately 22 miles of C-38. This will result in the restoration of almost 29,000 acres in the floodplain. Two structures will be removed and two bridges and associated utilities will be relocated. Real estate interests will be acquired for effected portions of the floodplain. (See Table 9-B for Authorizing Legislation.)

Estimated cost of the project for Kissimmee River (Upper and Lower Basins) $286,200,000 Federal and $286,200,000 non-Federal.

Local Cooperation. The South Florida Water Management District, an agency of the State of Florida, is the project sponsor and cost-sharing partner, and has expressed its intent to be the project sponsor. Local cost for the Headwater Revitalization is to be credited towards the total project cost. The authorization calls for the restoration to be cost-shared 50%-50% and that the lands be credited toward the total cost of the Kissimmee River Restoration. A draft Project Cooperation Agreement (PCA) was executed on 22 March 1994.

Operations and results during fiscal year. New work: Lands, $211,000. Fish and wildlife cost was $7,000. Channels and canal cost was $1,000. Floodway control structure cost was $2,050,000. Engineering and design cost was $3,154,978. Construction management cost was $922,000. Buildings, grounds, and utilities were $672,000. Relocations cost was $3,140,000.

Condition at the end of the fiscal year. Currently developing/finalizing plans and specifications for contracts to be awarded in FY 2004. Those contracts include: C-37 channel enlargement; S-650, S-83A & S-84A spillway addition; Avon Park Air Force Bombing Range Security fence installation; and S-65B radio tower.

80. RESTORATION WORK UNDER SPECIAL AUTHORIZATION

Restoration Activities Pursuant to Section 1135, Public Law 99-662.

Fiscal year costs were: AIWW Sebastian Inlet, FL $-9419; C102/103 Restoration, Dade County, FL $189,227; C-7 Miami Dade, FL $95,006; C-8 Miami Dade, FL $47,162; C-9 Miami Dade, FL $50,335; Chicopit Bay Wetland, FL $14,408; Coordination Account Funds $116,064; Johns Island Habitat Preservation $79,993; Lake Jessup, FL $74,237; Mill Cove, FL $179,107; Ocklawaha Prairie Restoration $108,637; Palm River Restoration Hillsborough $29,715; Peanut Island Restoration $4,652,784; Ponce de Leon Inlet, FL $265,246; Ponce de Leon – AIWW Inlet, FL $273,381; Preliminary Restoration Plan $20,399; Restore La Esperanza $1,428,289; Sarasota Bay Restoration $52,910; Virginia Key Beach, FL $87,095; Wetland Restoration Oklawaha $194,857; White Shell Bay $25,081; Total FY Cost $7,974,514.

Restoration Activities Pursuant to Sec 206, Public Law 104-303.

Fiscal year costs were: Sec 206 Coordination Accounts $58,214; Preliminary Restoration Accounts $66,565; Big Fishweir Creek, FL $8,641; Aquatic Ecosystem Restoration, Rose Bay, FL $220,673; C-1 Rediversion/Lagoon Restoration $215,349; Dinner Key, FL $71,735; Stevenson Creek Estuary, FL $187,405; Sawgrass Lake/Hell N Blazes $56,386; Lake Osborne, FL $299,909; Homosassa Springs Manatee Habitat Restoration $110,992; Boqueron Refuse, PR $250,774; Oleta River, Miami, FL $27; Bootheel Creek, FL $27,630; Myakkahatchee Creek at North Port, FL $6,297; Hogan's Creek, FL $209,423; Kitching Creek, Martin County, FL $10,764; total fiscal year cost $1,800,784.

81. WETLAND AND OTHER AQUATIC HABITAT CREATION UNDER SPECIAL AUTHORIZATION

Wetland Activities Pursuant to Sec 204 Public Law 102-560.

Fiscal year costs were: Cockroach Bay Habitat, FL $11,140; Condado Lagoon, PR $14,821; Sec 204 Coordination Accounts $19,935; total fiscal year cost $45,896.

TABLE 9-A COST AND FINANCIAL STATEMENT

See Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY-03	Total Cost To Sep. 30, 2003
1.Aquatic Plant Control (R&H Act of 1965	New Work: Approp.	-	-	1,600	-	39,414,100
	Cost	(13,744)	3,652	3,894	2,146	39,405,041
2.Arecibo Harbor, PR (Federal Funds)	New Work: Approp.	-	-	-	-	1,128,075 [1]
	Cost	-	-	-	-	1,128,075 [1]
	Maint: Approp.	2,033,000	968,400	(19,400)	55,000	7,528,431
	Cost:	2,022,434	988,826	(19,225)	55,493	7,528,431
3.Atlantic Intracoastal Waterway between Norfolk, VA and St. Johns River, FL	New Work: Approp.	-	-	-	-	361,225 [2]
	Cost	-	-	-	-	361,225 [2]
	Maint: Approp.	118,000	1,526,430	-	-	12,422,472
	Cost:	113,428	1,537,753	365	45	12,422,472
4.Bakers Haulover Inlet, FL (Federal Funds)	New Work: Approp.	-	-	-	-	243,235 [3]
	Cost	-	-	-	-	243,235 [3]
	Maint: Approp.	-	-	-	-	185,688
	Cost:	-	-	-	-	185,688
5.Canaveral Harbor, FL (Federal Funds)	New Work: Approp.	1,354,000	1,909,000	1,217,600	735,695	44,662,605 [4]
	Cost	673,809	2,606,557	1,257,438	738,833	44,661,028
	Maint: Approp.	6,182,000	3,438,603	4,429,947	5,819,000	103,008,916
	Cost:	6,300,263	3,416,184	4,327,947	5,731,116	102,786,772
(Contrib. Funds)	New Work: Approp.	-	77,712	-	-	2,635,845
	Cost	201,540	99,126	-	-	2,635,845

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See Sect.	PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Total Cost To Sep. 30, 2003
6.	Channel from Naples to Big Marco Pass, FL	New Work:					
	(Federal Funds)	Approp.	-	-	-	-	305,290
		Cost	-	-	-	-	305,290
		Maint:					
		Approp.	-	10,000	66,390	1,085,100	3,404,862
		Cost	-	9,004	66,126	1,086,360	3,404,862
	(Contrib. Funds)	New Work:					
		Approp.	-	-	-	-	159,975
		Cost	-	-	-	-	159,975
7.	Charlotte Harbor, FL	New Work:					
	(Federal Funds)	Approp.	-	-	-	-	533,169 [5]
		Cost	-	-	-	-	533,169 [5]
		Maint:					
		Approp.	-	-	-	-	22,835,644
		Cost:	4,246	-	-	-21,324	22,814,206
8.	Eau Gallie Harbor, FL	New Work:					
	(Federal Funds)	Approp.	-	-	-	-	9,627
		Cost	-	-	-	-	9,627
		Maint:					
		Approp.	-	-	-	-	2,137
		Cost:	-	-	-	-	2,137
9.	Fernandina Harbor, FL	New Work:					
	(Federal Funds)	Approp.	-	-	-	-	4,639,040 [6]
		Cost	-	-	-	-	4,639,040 [6]
		Maint:					
		Approp.	1,692,700	3,659,183	1,678,000	1,878,200	48,763,093
		Cost:	1,736,138	3,657,964	1,681,706	1,883,763	48,762,509
	(Contrib. Funds)	New Work:					
		Approp.	-	-	-	-	935,000
		Cost	-	-	-	-	935,000
10.	Fort Myers Beach Channel, FL	New Work:					
	(Federal Funds)	Approp.	-	-	-	-	158,140 [7]
		Cost	-	-	-	-	158,140 [7]
		Maint:					
		Approp.	146,500	1,650,000	(71,500)	-	3,371,131
		Cost	154,686	1,641,383	(57,744)	178	3,371,131

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Total Cost To Sep. 30, 2003
11.Fort Pierce	New Work:					
Harbor, FL	Approp.	-	-	-	-	5,424,500
(Federal Funds)	Cost	-	-	-	-	5,417,853
	Maint:					
	Approp.	1,623,900	387,740	998,000	284,400	11,563,278
	Cost:	1,619,208	398,108	995,178	287,759	11,563,206
(Contrib. Funds)	New Work:					
	Approp.	-	-	-	-	2,503,387
	Cost	-	-	-	-	2,498,659
12.Horseshoe	New Work:					
Cove, FL	Approp.	-	-	-	-	347,521
(Federal Funds)	Cost	-	-	-	-	347,521
	Maint:					
	Approp.	-	-	899,581	-	908,256
	Cost:	-	-	908,156	100	908,256
13.Gulf Intracoastal	New Work:					
Waterway	Approp.	-	-	-	-	8,112,557[8]
Caloosahatchee	Cost	-	-	-	-	8,112,557[8]
River to Anclote	Maint:					
River, FL	Approp.	151,600	99,684	10,000	5,000	7,882,543[9]
(Federal Funds)	Cost	187,078	105,482	11,607	5,063	7,882,543[9]
14.Intracoastal	New Work:					
Waterway	Approp.	-	-	-	-	19,251,598[10]
Jacksonville to	Cost	-	-	-	-	19,251,598[10]
Miami, FL	Maint:					
(Federal Funds)	Approp.	3,025,000	4,829,323	3,162,000	3,692,100	71,416,805[11]
	Cost:	3,155,634	4,857,996	3,172,736	3,704,012	71,415,902[11]
(Contrib. Funds)	Maint:					
	Approp.	-	-	-	-	61,000
	Cost	-	-	-	-	61,000

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Total Cost To Sep. 30, 2003
15.Jacksonville	New Work:					
Harbor, FL	Approp.	50,000	1,073,000	8,260,023	9,251,396	68,628,990[12]
(Federal Funds)	Cost	357,931	1,075,410	8,559,828	9,240,942	68,616,622[12]
	Maint:					
	Approp.	3,275,800	7,253,324	5,386,000	5,653,500	121,871,622[13]
	Cost:	3,333,365	7,228.972	5,406,409	5,666,088	121,871,157[13]
	Rehab:					
	Approp.	-	-	-	-	102,813
	Cost	-	-	-	-	102,813
(Contrib. Funds)	New Work:					
	Approp.	-	-	-	-654	1,135,015[14]
	Cost	188,264	11,956	3,271	-220	1,135,015[14]
	Maint:					
	Approp.	-	-	-	-	25,000
	Cost	-	-	-	-	25,000
16.Jacksonville Hbr.	New Work:					
(Mill Cove), FL	Approp.	-	-	-	-	4,104,000
(Federal Funds)	Cost	-	4,791	1,597	2,871	4,104,000
(Contrib. Funds)	New Work:					
	Approp.	250,000	1,750,000	285,400	-162,751	2,122,649
	Cost	174,782	68,530	1,873,750	5,587	2,122,649
17.Johns Pass, FL	New Work:					
(Federal Funds)	Approp.	-	-	-	-	82,098[15]
	Cost	-	-	-	-	82,098[15]
	Maint:					
	Approp.	521,200	-	-	-	2,466,912
	Cost	521,177	3,019	-	237	2,466,912
18.Long Boat	New Work:					
Pass, FL	Approp.	-	-	-	-	1,020,233
(Federal Funds)	Cost	-	-	-	-	1,020,233
	Maint:					
	Approp.	90,000	-	(1,390)	-	3,841,796
	Cost:	60,222	20,937	7,475	1	3,841,796
(Contrib. Funds)	New Work:					
	Approp.	-	-	-	-	172,324
	Cost	-	-	-	-	172,324
19.Manatee	New Work:					
Harbor, FL	Approp.	755,000	525,000	607,000	2,206,053	10,175,153
(Federal Funds)	Cost	745,126	412,200	901,758	2,206,269	10,167,544
	Maint:					
	Approp.	10,000	43,377	19,000	55,400	5,448,777
	Cost:	9,913	45,123	18,704	55,861	5,448,777
(Contrib. Funds)	New Work:					
	Approp.	-	-	20,000	2,683,189	5,290,132
	Cost	-	-	-	439,135	3,026,078

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Total Cost To Sep. 30, 2003
20.Mayaguez	New Work:					
Harbor, PR	Approp.	-	-	-	-	168,187
(Federal Funds)	Cost	-	-	-	-	168,187
	Maint:					
	Approp.	-	-	-	-	1,061,561
	Cost	-	-	-	-	1,061,561
21.Melbourne	New Work:					
Harbor, FL	Approp.	-	-	-	-	17,696
(Federal Funds)	Cost	-	-	-	-	17,696
	Maint:					
	Approp.	-	-	-	-	634,864
	Cost:	-	-	-	-	634,864
22.Miami	New Work:					
Harbor, FL	Approp.	874,000	4,113,000	1,115,377	1,075,141	57,799,143[16]
(Federal Funds)	Cost	428,487	4,447,374	1,274,519	1,079,821	57,796,139[16]
	Maint:					
	Approp.	673,500	54,555	212,000	74,100	7,385,792
	Cost	663,022	104,008	211,109	74,352	7,383,983
(Contrib. Funds)	New Work:					
	Approp.	-	-	-	-	2,300,710[17]
	Cost	-	-	-	-	2,300,710[17]
23.New Pass	New Work:					
Sarasota, FL	Approp.	-	-	-	-	45,811[18]
(Federal Funds)	Cost	-	-	-	-	45,811[18]
	Maint:					
	Approp.	65,000	20,000	142,000	1,304,900	8,277,826
	Cost:	51,365	33,782	137,134	1,310,847	8,277,826
24.Okeechobee	New Work:					
Waterway, FL	Approp.	-	-	-	-	21,756,418[19]
(Federal Funds)	Cost	-	-	-	-	21,756,418[19]
	Maint:					
	Approp.	6,188,500	5,214,504	3,529,000	3,178,023	95,504,448[20]
	Cost:	6,222,474	5,219,459	3,290,275	3,248,357	95,332,735[20]
25.Oklawaha	New Work:					
River, FL	Approp.	-	-	-	-	315,264[21]
(Federal Funds)	Cost	-	-	-	-	315,264[21]
	Maint:					
	Approp.	38,900	-	-	26,000	2,923,976[22]
	Cost:	37,926	1,703	-	25,981	2,923,914[22]

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See Sect.	PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Total Cost To Sep. 30, 2003
26.	Palm Beach Harbor, FL	New Work:					
	(Federal Funds)	Approp.	-	-	-	-	6,924,021[23]
		Cost	-	-	-	-	6,924,021[23]
		Maint:					
		Approp.	2,173,000	1,779,158	3,315,350	2,958,700	37,569,554[24]
		Cost	2,270,202	1,762,438	3,313,946	2,987,649	37,566,805[24]
27.	Palm Valley Bridge, Fl	New Work:					
	(Federal Funds)	Approp.	3,334,000	9,093,000	6,126,500	38,917	20,659,517
		Cost	3,557,469	9,375,536	6,198,873	154,399	20,659,376
	(Contrib. Funds)	New Work:					
		Approp.	-	-	1,750,000	265,403	2,015,403
		Cost			324,438	737,219	1,061,657
28.	Ponce de Leon Inlet, FL	New Work:					
	(Federal Funds)	Approp.	25,000	(1,904)	25,000	64,367	2,212,117
		Cost	57,854	15,598	26,726	54,939	2,202,580
		Maint:					
		Approp.	5,825,400	2,859,901	1,932,000	-	33,232,721
		Cost	5,870,546	2,888,463	1,950,816	725	33,232,721
	(Contrib. Funds)	New Work:					
		Approp.	37,000	-	-	-	2,452,600
		Cost	2,004	27,805	6,450	741	2,452,600
		Maint:					
		Approp.	-	-	-	-	1,379,000
		Cost	-	-	-	-	1,112,663
29.	Ponce Harbor, PR	New Work:					
	(Federal Funds)	Approp.	-	-	-	-	2,227,260[25]
		Cost	-	-	-	-	2,227,260[25]
		Maint:					
		Approp.	-	-	-	-	1,779,270
		Cost:	-	-	-	-	1,779,270
	(Contrib. Funds)	New Work:					
		Approp.	-	-	-	-	717,304
		Cost	-	-	-	-	717,304
30.	Port Everglades Harbor, FL	New Work:					
	(Federal Funds)	Approp.	-	-	-	-	54,429,666[26]
		Cost	-	-	-	-	54,429,666[26]
		Maint:					
		Approp.	50,000	201,000	38,000	143,800	2,795,678
		Cost:	58,858	190,485	55,395	143,878	2,795,637

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Total Cost To Sep. 30, 2003
31.Removal of	Maint:					
Aquatic Growth	Approp.	3,658,856	5,080,323	3,385,740	3,961,600	89,025,656
(Federal Funds)	Cost	3,792,390	5,114,829	3,453,294	3,957,194	88,997,723
32.St Augustine	New Work:					
Harbor, FL	Approp.	-	-	-	-	1,476,434[27]
(Federal Funds)	Cost	-	-	-	-	1,476,434[27]
	Maint:					
	Approp.	376,000	-	-	7	9,717,107
	Cost:	375,028	7,424	917	7	9,717,107
33.St. Johns	New Work:					
River, FL	Approp.	-	-	-	-	1,171,243[28]
Jacksonville to	Cost	-	-	-	-	1,171,243[28]
Lake Harney	Maint:					
(Federal Funds)	Approp.	-	-	-	-	1,300,299[29]
	Cost	-	-	-	-	1,300,299[29]
34.St. Lucie	New Work:					
Inlet, FL	Approp.	162,000	138,659	6,693,900	299,022	16,062,450[30]
(Federal Funds)	Cost	171,379	181,924	6,708,267	309,078	16,060,970[30]
	Maint:					
	Approp.	2,496,500	669,000	3,572,000	50,000	16,949,456
	Cost:	2,504,209	669,623	3,572,523	45,417	16,943,966
(Contrib. Funds)	Maint:					
	Approp.	-	-	-	-	3,851,383
	Cost	-	-	-	-	3,851,383
35.San Juan	New Work:					
Harbor, PR	Approp.	14,215,146	18,467,000	417,700	177,660	54,377,474[31]
(Federal Funds)	Cost	14,615,441	17,534,743	1,544,382	181,650	54,367,661[31]
	Maint:					
	Approp.	1,416,100	479,000	442,000	94,000	24,936,929[32]
	Cost:	1,453,384	469,690	461,934	98,485	24,936,065[32]
(Contrib. Funds)	New Work:					
	Approp.	6,000,000	4,000,000	4,028,708	-	16,128,708
	Cost	6,043,974	3,106,644	3,048,930	26,258	14,008,797

See Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Total Cost To Sep. 30, 2003
36.Tampa Harbor, FL	New Work:					
(Main Channel)	Approp.	-	-	-	-	173,767,440[33]
(Federal Funds)	Cost	-	-	-	-	173,767,440[33]
	Maint:					
	Approp.	3,997,000	6,560,435	6,391,103	6,184,200	80,404,970 [34]
	Cost	4,055,048	6,577,776	6,404,892	6,197,850	80,399,424 [34]
(Contrib. Funds)	New Work:					
	Approp.	-	-	-	-	1,038,711
	Cost	-	-	-	-	1,038,711
36.Tampa Harbor, FL (East Bay- Branch Channels)	New Work:					
(Federal Funds)	Approp.	234,000	8,400,000	436,000	-4,693	11,080,120
	Cost	249,462	5,882,345	2,998,142	-4,571	11,080,120
(Contrib. Funds)	New Work:					
	Approp.	500,000	600,000	-	-	4,359,000
	Cost	-	851,306	223,727	-	3,976,477
36.Tampa Harbor, FL	New Work:					
(Port Sutton)	Approp.	75,000	50,000	-	12,922	692,922
(Federal Funds)	Cost	156,729	55,057	1,357	12,849	692,804
36.Tampa Harbor	New Work:					
(Big Bend)	Approp.	-	-	-	11,000	221,000
(Federal Funds)	Cost	23,105	3,862	-	15,416	217,102
(Contrib. Funds)	New Work:					
	Approp.	-	-	-	-	48,333
	Cost:	5,394	7,398	284	33,421	46,497
(Alafia River)	New Work:					
(Federal Funds)	Approp.	125,000	418	(125,000)	69,341	69,759
	Cost	-	-	-	67,913	67,913
36.Tampa Harbor, FL	New Work:					
(GRR)	Approp.	-	85,000	572,700	431,798	1,089,498
(Federal funds)	Cost	-	72,871	577,341	436,747	1,086,959
40.Brevard County,	New Work:					
FL	Approp.	1,868,000	14,470,000	6,377,500	1,844,455	27,496,828
(Federal Funds)	Cost	439,949	15,277,502	7,005,165	1,863,424	27,480,659
	Maint:					
	Approp.	-	-	-	-	29,001
	Cost	-	-	-	-	29,001
(Contrib. Funds)	New Work:					
	Approp.	-	7,970,026	4,979,000	800,000	16.211,026
	Cost	15,034	6,922,276	5,760,188	1,035,177	16,170,984

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Total Cost To Sep. 30, 2003
41.Broward	New Work:					
County,	Approp.	290,349	150,000	61,700	1,661,471	21,690,620
FL Beach Erosion	Cost	257,528	150,493	142,946	1,665,333	21,690,620
Control & Hillsboro	Maint:					
Inlet, FL	Approp.	-	-	-	-	26,884
Navigation Proj.	Cost	-	-	-	-	26,884
(Federal Funds)	New Work:					
(Contrib. Funds)	Approp.	-	-	-	-	3,460,990[35]
	Cost	-	-	-	-	3,460,990[35]
41.Hilsboro Inlet,	New Work:					
FL	Approp.	25,000	114,000	23,100	-71	706,717
(Federal Funds)	Cost	84,977	153,038	38,172	-	706,717
42.Duval County,	New Work:					
FL	Approp.	370,000	435,000	(-21,300)	1,993,460	22,951,060
(Federal Funds)	Cost	457,125	351,828	97,941	2,007,949	22,946,481
(Contrib. Funds)	New Work:					
	Approp.	-	5,200,000	(2,500,000)	-	19,595,567
	Cost	-	-	-	1,460,982	18,356,549
43.Ft. Pierce Beach,	New Work:					
FL	Approp.	1,139,000	518,000	535,900	1,670,946	10,091,249
(Federal Funds)	Cost	1,023,668	744,844	627,647	1,677,392	10,087,959
(Contrib. Funds)	New Work:					
	Approp.	431,180	-	-	2,070,000	7,124,180
	Cost:	-	271,314	221	1,420,811	6,220,557
44.Indian River	New Work:					
County, FL	Approp.	38,000	(13,004)	-	-	523,677
(Federal Funds)	Cost	62,737	679	-	-	523,677
45.Lee County, FL	New Work:					
(Federal Funds)	Approp.	40,000	100,000	(6,900)	67,998	3,681,098
	Cost	95,005	49,581	60,602	68,695	3,680,473
46.Manatee	New Work:					
County,	Approp.	150,000	168,000	658,700	1,516,388	8,608,688
FL	Cost	95,482	25,560	867,619	1,516,586	8,608,688
(Federal Funds)	New Work:					
(Contrib. Funds)	Approp.	-	-	-	-	3,337,348
	Cost:	-	-	-	-	3,337,320

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Total Cost To Sep. 30, 2003
47.Martin County,	New Work:					
FL	Approp.	216,000	1,361,000	800,000	29,778	8,062,378
(Federal Funds)	Cost	202,898	1,130,102	1,057,327	30,900	8,058,709
(Contrib. Funds)	New Work:					
	Approp.	-	1,410,000	1,000,000	-	7,440,000
	Cost	-	838,524	364,331	593,125	6,812,732
48.Nassau County,	New Work:					
FL	Approp.	-	(16,659)	-	195,307	2,054,201
(Federal Funds)	Cost	43,543	3,392	-	191,197	2,044,051
49.Palm Beach	New Work:					
County, FL	Approp.	132,113	2,868,000	815,300	1,689,000	19,861,847
(Federal Funds)	Cost	18,353	2,581,843	1,250,247	1,688,306	19,853,840
	Maint:					
	Approp.	-	-	-	-	13,621
	Cost	-	-	-	-	13,621
49.Lake Worth	New Work:					
Transfer Plant, FL	Approp.	824,289	(673,081)	37,900	28,969	499,577
(Federal Funds)	Cost	175,032	45,418	47,803	28,106	498,624
50.Palm Beach	New Work:					
Island, FL	Approp.	-	-	-	-	1,793,000
(Federal Funds)	Cost	-	-	-	-	1,793,000
51.Pinellas County,	New Work:					
FL	Approp.	4,765,000	3,629,004	1,365,700	601,587	52,765,984
(Federal Funds)	Cost	5,225,357	3,436,924	1,719,645	601,913	52,762,171
	Maint:					
	Approp.	-	-	-	-	5,625
	Cost	-	-	-	-	5,625
(Contrib. Funds)	New Work:					
	Approp.	1,030,000	-	2,285,599	183,077	33,912,849
	Cost	3,075,340	116,897	-	2,406,221	33,850,018
52.St. Johns County,	New Work:					
FL	Approp.	202,000	2,796,000	6,194,600	3,778,701	14,770.587
(Federal Funds)	Cost	219,696	1,089,290	7,895,028	3,821,619	14,770,587
(Contrib. Funds)	New Work:					
	Approp.	-	642,693	544,521	3,100,500	4,316,700
	Cost:	-	-	1,160,834	2,567,640	3,728.474

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See						Total Cost To

Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Sep. 30, 2003
53.Sarasota County,	New Work:					
FL	Approp.	(94,462)	370,000	481,200	347,534	15,418,071
(Federal Funds)	Cost	(94,762)	86,927	807,228	348,492	15,416,538
(Contrib. Funds)	New Work:					
	Approp.	-	-	-	-	5,020,605
	Cost	170,158	-	-	24,854	5,020,355
56.Cedar Hammock	New Work:					
(Wares Creek), FL	Approp.	-	468,000	(87,800)	377,856	1,318,056
(Federal Funds)	Cost	85,245	158,796	133,923	519,446	1,302,675
(Contrib. Funds)	New Work:					
	Approp.	-	139,901	-	-	227,901
	Cost	6,584	80,775	111,008	10,949	209,316
57.Dade County,	New Work:					
FL	Approp.	1,511,000	9,144,000	3,837,800	1,207,284	71,789,636 [37]
(Federal Funds)	Cost	1,136,923	9,788,857	4,356,707	1,247,945	71,787,928 [37]
(Contrib. Funds)	New Work:					
	Approp.	7,817,599	912,891	3,906,075	8,254,391	60,807,233 [38]
	Cost	(139,502)	8,216,946	2,419,059	1,388,757	51,595,631 [38]
58.Dade County,	New Work:					
N. of Haulover	Approp.	-	-	-	-	6,801,611
Beach, FL	Cost	-	-	-	-	6,801,611
(Federal Funds)	New Work:					
(Contrib. Funds)	Approp.	-	-	-	-	8,082,927
	Cost	-	-	-	-	8,082,927

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See **Total Cost To**

JACKSONVILLE, FL DISTRICT

Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Sep. 30, 2003
59.Four River	New Work:					
Basins, FL	Approp.	(100,000)	-	-	-156,000	75,999,095[39]
(Federal Funds)	Cost	(183,910)	18,390	-	-	75,993,302[39]
(Contrib. Funds)	New Work:					
	Approp.	185,857	-	-	-	14,095,058
	Cost	194,767	-	-	-	14,095,058
60.Portugues and	New Work:					
Bucana Rivers, PR	Approp.	5,460,000	3,937,000	4,814,000	5,277,057	398.928,025
(Federal Funds)	Cost	5,715,802	3,901,361	5,167,219	5,322,632	398,917,414
(Contrib. Funds)						
	New Work:					
	Approp.	2,435,000	435,000	(290,000)	660,000	10.953,201
	Cost	1,341,221	1,122,894	878,330	647,493	10,104,506
61.Rio de la	New Work:					
Plata, PR	Approp.	658,000	427,000	110,300	280,600	7,362,898
(Federal Funds)	Cost	599,517	363,019	272,194	281,215	7,362,889
(Contrib. Funds)	New Work:					
	Approp.	681,088	-	153,000	-	834,088
	Cost	40,173	59,645	-	248,110	347,928
62.Rio Grande de	New Work:					
Arecibo, PR	Approp.	444,000	1,027,000	382,000	1,089,826	4,801,041
(Federal Funds)	Cost	501,387	925,762	504,521	1,087,272	4,797,726
(Contrib. Funds)	New Work:					
	Approp.	-	-	882,000	-	882,200
	Cost	-	-	569,115	215,613	785,628
63.Rio Grande de	New Work:					
Loiza, PR	Approp.	10,000	629,000	283,000	198,484	3,833,625
(Federal Funds)	Cost	4,927	490,761	401,901	222,894	3,833,624
64.Rio Manati,	New Work:					
Barceloneta, PR	Approp.	-	1,000,000	3,713,100	4,105,652	8,818,752
(Federal Funds)	Cost	-	431,567	4,261,963	4,087,522	8,791,052
(Contrib. Funds)	New Work:					
	Approp.	-	-	1,784,275	1,379,369	3,163,644
	Cost	-	-	1,079,936	1,537,545	2,617,481
65.Rio Puerto	New Work:					
Nuevo, PR	Approp.	10,524,000	11,914,000	5,201,400	14,135,263	96,949,759
(Federal Funds)	Cost	11,932,705	13,003,164	5,416,018	14,167,828	96,944,746
(Contrib. Funds)	New Work:					
	Approp.	5,250,000	4,271,396	4,400,000	-	26,341,396
	Cost	5,818,149	4,186,745	2,557,903	3,953,651	25,121,001

TABLE 9-A (Cont.) COST AND FINANCIAL STATEMENT

See Sect. PROJECT	FUNDING	FY 00	FY 01	FY 02	FY 03	Total Cost To Sep. 30, 2003
74.General Regulatory	New Work:					
(Federal Funds)	Approp.	8,283,000	9,483,437	9,208,600	9,560,000	106,311,237[40]
	Cost	7,811,478	8,551,271	9,483,591	10,739,005	105,813,336[40]
76.Central and	New Work:					
Southern Florida	Approp.	34,586,854	43,886,000	86,749,000	89,912,035	725,912,202[36]
(Federal Funds)	Cost	31,870,918	41,765,085	90,248,587	93,116,144	725,835,239[36]
	Maint:					
	Approp.	18,789,900	13,838,884	16,945,335	16,219,577	218,401,236
	Cost	18,757,847	13,474,483	17,330,406	16,286,643	218,360,762
(Contrib. Funds)	New Work:					
	Approp.	6,440,167	2,298,063	5,991,578	5,348,098	85,933,008
	Cost	6,081,434	2,311,046	4,447,884	4,244,240	81,428,095
76.Herbert Hoover	New Work:					
Dike, FL	Approp.	-	1,340,000	1,350,000	150,000	2,840,000
(Federal Funds)	Cost	-	590,662	1,479,010	434,295	2,503,967
77.Everglades South	New Work:					
Florida Ecosystem	Approp.	5,435,700	7,201,000	6,939,000	555,234	25,948,934
Restoration, FL	Cost	4,368,378	6,932,407	9,341,975	946,639	25,941,146
(Federal Funds)						
(Contrib. Funds)	New Work:					
	Approp.	2,672,000	1,113,110	5,537,723	7,201,406	17,024,239
	Cost	38,269	2,105,675	3,448,904	1,660,525	7,253,373
78.Florida Keys	New Work:					
Water Quality	Approp.	0	0	120,000	271,000	391,000
	Cost	0	0	72,680	260,726	333,406
79.Kissimmee River,	New Work:					
FL	Approp.	25,244,000	13,499,000	4,300,000	5,608,512	89,886,512
(Federal Funds)	Cost	24,065,361	13,680,792	5,775,585	6,047,364	89,886,501
(Contrib. Funds)	New Work:					
	Approp.	494,000	-	4,539,000	1,537,881	8,163,881
	Cost	1,089,598	(101,942)	400,834	4,110,614	5,879,954

[1]Excludes $288,000 for contributed funds for new work.
[2]Includes $97,566 for previous project.
[3]Excludes $243,235 contributed funds for new work.
[4]Excludes $700,000 contributed by NASA in connection with construction of lock.
[5]Includes $113,000 for new work on previous project; excludes $15,563 expended for new work on existing project in Boca Grande entrance channel from contributed funds.
[6]Includes $905,221 expended for recreation facilities.
[7]Includes $10,128 cost for reconnaissance and detailed project report prepared under Section 107 modification to the project. Excludes $1,095 contributed funds for new work.
[8]Includes $515,479 for new work for previous projects: $8,472 for new work on Sunshine Skyway Channel; and $9,707 for new work for Cats Point Channel. Excludes $14,473 contributed funds for new work for Sunshine Skyway and Boca Ciega Bay channels.
[9]Includes $450,749 for maintenance for previous project.
[10]Includes $94,776 for work for previous projects. Excludes $2,199,842 expended from public works funds for new work.
[11]Includes $213,222 for maintenance on previous projects and $3,179 operating and care under provisions of permanent indefinite appropriation.
[12]Includes $3,520,137 new work on previous project and $290,013 for new work expended from public works funds.
[13]Includes $543,399 maintenance on previous projects.
[14]Includes unused contributed funds of $64,136 returned to local interests.
[15]Project authorized December 2, 1964, by Chief of Engineers under Section 107 of 1960 R&H Act and by Section 110 of the 1966 R&H Act. Cost of new work excludes $53,732 contributed funds.
[16]Includes $5,502,126 expended from public work funds for new work. Includes costs of $6,777,906 for recreation facilities.
[17]Includes $381,479 work-in-kind and $172,314 in costs for north jetty recreation facility.
[18]Excludes $45,811 contributed funds for new work.
[19]Includes $21,101,919 for new work under previous project, $626,925 for recreational facilities (Code 710), and $27,574 for reconnaissance and detailed project report prepared under Section 107 modification to the project.
[20]Includes $7,581,150 for maintenance for previous projects. Excludes $1,000 for maintenance.
[21] Includes $3,912 for new work for previous projects.
[22]Includes $11,414 for operating and care under provisions for permanent indefinite appropriation.
[23]Includes $80,000 new work from public works funds. Excludes $509,506 contributed funds.
[24]Includes $30,000 for maintenance from public works funds.
[25]Includes $11,588 expended for restudy, but excludes $21,960 expended for new work from contributed funds.
[26]Excludes $1,033,069 contributed funds.
[27]Includes $71,303 for new work on previous project. Excludes $137,500 contributed funds.
[28]Baresford cutoff and completion of cutoffs and easing of bends in Putnam Lake and Volusia Counties in inactive status were deauthorized by Public Law 93-251 section 12. Includes $29,566 for new work under previous project.
[29]Includes $25,838 under previous project.
[30]Includes $26,689 for new work under previous project.
[31]Includes $747,684 for new work under previous project. Excludes $100,000 expended for new work from contributed funds.
[32]Includes $44,730 for maintenance from public works funds under previous project.
[33]Includes $853,050 for new work from public works funds under previous project and $1,463,000 from emergency relief funds. Excludes $270,466 for new work for Hillsborough River and $13,939 for new work from contributed funds.
[34]Includes $17,107 for maintenance under previous project.
[35]Includes work-in-kind.
[36]Excludes $15,543 for property received without reimbursement and R&H Funds, expended on previous projects (see cost and financial statement for Okeechobee Waterway, FL, project for these costs). Excludes $100,000 advanced by local interests toward federal costs. Includes $175,000 appropriation and $175,000 cost for new work at C&SF St. Johns Water Management District.
[37]Includes $2,294,134 for reimbursement costs to Bal Harbor.
[38]Excludes unused contributed funds of $17,969 returned to local interests.
[39]Includes costs of $89,691 for recreation facilities at Moss Bluff and $2,638,272 at Lake Tarpon.
[40]Funds appropriated under General Regulatory Functions 96X3126.

TABLE 9-B AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	AQUATIC PLANT CONTROL (See Section 1 of Text)	
Oct. 27, 1965	Control and progressive eradication of obnoxious aquatic plants, and continued research to develop best method of control.	H.Doc. 251, 89th Cong., 1st sess.
	LOWER ST. JOHNS RIVER BASIN, FL	
WRDA Aug. 17, 1999	May apply the computer model developed under the feasibility study to assist non-Federal interests in developing strategies for improving water quality at 50 percent cost share.	P.L. 106-53, Aug. 17, 1999 106th Cong., 1st sess.
	TAMPA, FL	
WRDA Oct. 12, 1996	May enter into a cooperative agreement under section 229 with the Museum of Science and Industry, Tampa, Fl to provide technical, planning, and design assistance to demonstrate the water quality functions found in wetlands, at an estimated total Federal cost of $500,000.	P.L. 104-303, Oct. 12, 1996 104th Cong.
	WEST DADE, FL	
WRDA Oct. 12, 1996	Conduct a reconnaissance study to determine the Federal interest in using the West Dade, FL, reuse facility to improve water quality in, and increase the supply of surface water to, the Everglades in order to enhance fish and wildlife habitat.	P.L. 104-303, Oct. 12,1996 104th Cong.
NAVIGATION PROJECTS	**ARECIBO HARBOR, PR (See Section 2 of Text)**	
Aug. 26, 1937	Construction of breakwater 1,200 feet long and dredging channel 25 feet deep and 400 feet wide with flare at entrance and widening at inner end to form a maneuvering area.	Rivers and Harbors Committee Doc. 43, Cong., 75th 1st sess.
	ATLANTIC INTRACOASTAL WATERWAY, ST. JOHNS COUNTY, FL	
WRDA Oct. 12, 1996	Project for navigation. Operation, maintenance, repair, replacement and rehabilitation shall be a non-Federal responsibility, and the non-Federal interest shall assume ownership for the bridge.	P.L.104-303, Oct. 12, 1996 104th Cong.
	ATLANTIC INTRACOASTAL WATERWAY BETWEEN NORFOLK, VA AND THE ST. JOHNS RIVER, FL (See Section 3 of Text)	
Mar. 4, 1913	Channel 7 x 100 feet.	H.Doc. 898, 62nd Cong., 2d sess.
Jun. 20, 1939	Channel 12 feet deep and 90-150 feet wide with cutoffs.	H.Doc. 618, 75th Cong., 3d sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	BAKERS HAULOVER, FL (See Section 4 of Text)	
Jul. 14, 1960	Channel 11 x 200 feet in ocean entrance, thence 8 x 100 feet to Intracoastal Waterway; Marina basin 8 x 200 feet; reconstruction of jetties and protection of inlet shores.	H.Doc. 189, 86th Cong., 1st sess.
	CANAVERAL HARBOR, FL (See Section 5 of Text)	
Mar. 2, 1945	Entrance channel jetties, a turning basin enclosed by a dike, and a barge canal with a lock.	H.Doc. 367, 77th Cong., 1st sess.
Oct. 23, 1962	Maintain improved channel, turning basin, enlarge barge channel and lock, relocate dike, provide channel and turning basin west of 35-foot turning basin, construct and operate sand-transfer plant.	S.Doc. 140, 87th Cong., 2d sess.
Report of the Chief of Engineers Oct. 1985	Mitigation of fish and wildlife losses at Port Canaveral West Turning Basin Project.	P.L. 99-662, Nov. 17, 1986 99th Cong., 2d sess
Report of the Chief of Engineers Jul. 24, 1991	Project for navigation, Canaveral Harbor, FL, as modified by the letter of the Secretary dated Oct. 10, 1991	P.L. 102-580, Oct. 13, 1992 102nd Cong., 2d sess.
WRDA Oct. 12, 1996	Modification of navigation project to reclassify the removal and replacement of stone protection on both sides of the channel as general navigation features.	P.L. 104-303, Oct. 12, 1996 104th Cong.
	CHANNEL FROM NAPLES TO BIG MARCO PASS, FL (See Section 6 of Text)	
Jun. 20, 1938	Interior channel 6 x 70 feet.	H.Doc. 596, 75th Cong., 3d sess.
Jul. 14, 1960	Channel 12 x 150 feet from the Gulf to Gordon Pass, thence 10 x 100 feet to a point 400 feet south of U.S. Highway 41 Bridge, thence 10 x 70 feet to bridge and two turning basins.	H.Doc. 183, 86th Cong., 1st sess.
	CHARLOTTE HARBOR, FL (See Section 7 of Text)	
Jul. 25, 1912	Channel 24 x 300 feet through Gulf through Boca Grande entrance.	H.Doc. 699, 62nd Cong., 2d sess.
Mar. 3, 1925	Depth of 27 feet at entrance and width of 500 feet at bend.	H.Doc. 113, 66th Cong., 1st sess.
Jul. 3, 1930	Channel 10 x 100 feet to Punta Gorda and a turning basin.	Rivers and Harbors Committee, Doc. 1, 70th Cong., 1st sess.
Aug. 26, 1937	Depth of 30 feet at entrance and width of 700 feet at bend.	Rivers and Harbors Committee Doc.95, 74thCong., 2d sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
May 17, 1950	Depth of 32 feet in entrance channel.	H.Doc. 186, 81st Cong., 1st sess.
	EAU GALLIE HARBOR, FL (See Section 8 of Text)	
Jun. 20, 1938	Channel 8 x 100 feet and a turning basin.	H.Doc. 497, 75th Cong., 3 sess.
	FERNANDINA HARBOR, FL (See Section 9 of Text)	
Jun. 14, 1880	Entrance jetties.	Annual Report 1879
Jul. 13, 1892	Raising and extending jetties to provide a 19-foot depth.	Annual Report 1891 & 1896
Mar. 2, 1907	Improvement of inner harbor to obtain 20 to 24-foot depth and 400 to 600-foot channel width.	H.Doc. 388, 59th Cong., 1st sess.
Jun. 25, 1910	Combining improvement of Fernandina Harbor and Cumberland Sound under the general heading of Fernandina Harbor.	
Mar. 3, 1925	Provided for a 26-foot channel.	H.Doc. 227, 68th Cong., 1st sess.
Jun. 20, 1938	Provided for the 28-foot channel and turning basin.	H.Doc. 548, 75th Cong., 3d sess.
Mar. 2, 1945	Provided for reducing the maximum width of turning basin from 1,000 to 800 feet, for shifting channel line in this vicinity vicinity 50 feet northwesterly and for including in authorized project small area dredged by Rayonier, Inc.	H.Doc. 284, 87th Cong., 1st sess.
May 17, 1950	Provided for 32-foot channel and turning basin.	H.Doc. 662, 80th Cong., 2d sess.
WRDA Nov. 28, 1990	Re-designated location of turning basin until Section 107 (R&H Act of 1960) study is completed and the resulting. project constructed	P.L. 101-640, Nov. 28, 1990 101st Cong.? sess.
WRDA Jan. 24, 2000	Realign the access channel in the vicinity of the Fernandina Beach Municipal Marina 100 feet to the west and cost shall be a non-Federal expense.	P.L. 106-541, Jan. 24, 2000 106th Cong., 2nd sess.
	FORT MYERS BEACH, FL (See Section 10 of Text)	
Jul. 14, 1960	12 x 150 foot channel in San Carlos Bay, thence 11 x 125 feet in Matanzas Pass to upper shrimp terminals.	H.Doc. 183, 86th Cong., 1st sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
Auth. by Chief of Engineers Dec. 6, 1968 under Sec. 107 of 1960 R&H Act	Extension of 11 x 125 foot channel easterly about 2,000 feet to and including a turning basin adjacent to natural deep water in Matanzas Pass.	
	FORT PIERCE HARBOR, FL (See Section 11 of Text)	
Def. Act of Mar. 4, 1931	Expenditure of $20,000 for dredging channel, maintenance by local interests.	Specified in Act
War Dept. Approp. Act, Mar. 4, 1933	Expenditure of up to $30,000 for dredging channel.	Specified in Act
Aug. 30, 1935	Maintaining channels, jetties, and revetments, and enlarging channels and turning basin to existing project dimensions.	H.Doc. 252, 72nd Cong., 1st sess. and Rivers and Harbors Committee Doc. 21, 74th Cong., 1st sess.
Report of the Chief of Engineers Dec. 14, 1987	Deepening and enlarging channels and turning basin. Total cost of $6,742,000.	P.L. 100-676, Nov. 17, 1988 100th Cong., 2d sess.
	HORSESHOE COVE, FL (See Section 12 of Text)	
May 17, 1950	A channel 6 feet deep and 75 feet wide and a turning basin 6 feet deep and of an irregular shape.	River and Harbor Act H.Doc. 106, 81st Cong., 1st sess.
	INTRACOASTAL WATERWAY, CALOOSAHATCHEE RIVER TO ANCLOTE RIVER, FL (See Section 13 of Text)	
Mar. 2, 1945	9 x 100 foot channel; deepening channel at Casey's Pass to 9 feet and construction of Highway Bridge at Venice.	H.Doc. 371, 76th Cong., 1st sess.
Jun. 30, 1948	Original route may be modified at no excess cost to U.S.	Specified in Act
May 17, 1950	Any route in Venice-Lemon Bay area may be used.	Specified in Act
Sep. 3, 1954	Use of alternate Route C-1 in Venice-Lemon Bay area.	Specified in Act
May 10-16, 1957	Local interests to bear costs of Venice Avenue highway bridge and any other necessary crossing over Route C-1.	H.Doc. 109, 85th Cong., 1st sess.
Auth. Mar. 1, 1962 by Senate and House Public. Works Comm	Sunshine Skyway Channel to be improved and maintained to. 9 x 100 feet	

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
Auth. by Chief of Engineers, Mar.1, 1963, under Sec 107 of 1960 R&H Act	6 x 80 foot channel in Boca Ciega Bay.	
	INTRACOASTAL WATERWAY, JACKSONVILLE TO MIAMI, FL (See Section 14 of Text)	
Jan. 21, 1927	Channel 8 x 75 feet from Jacksonville to Miami.	H.Doc. 586, 69th Cong., 2d sess.
Jul. 3, 1930	Channel width of 100 feet.	S.Doc. 71, 71st Cong., 2d sess.
PARA Jun. 26, 1934	Operation and care of Palm Valley Bridge.	Specified in Act
Aug. 26, 1937	Turning basin at Jacksonville Beach.	H.Doc. 180, 75th Cong., 1st sess.
Mar. 2, 1945	Channel 12 x 125 feet.	H.Doc. 740, 79th Cong., 2d sess.
Mar. 2, 1945	Side channel and turning basin at Sebastian (deauthorized).	H.Doc. 336, 76th Cong., 1st sess.
Mar.2, 1945	Turning basin at Vero Beach.	H.Doc. 261, 76th Cong., 1st sess.
Jul. 3, 1958	Maintenance of side channel at Daytona Beach.	H.Doc. 222, 85th Cong., 1st sess.
Chief of Engineers Report of Jul. 22, 1960,Mod. 12-foot Channel	Channel 10 x 125 feet from Ft. Pierce to Miami.	
	JACKSONVILLE HARBOR, FL (See Section 15 of Text) ST. JOHNS RIVER, FL OPPOSITE THE CITY OF JACKSONVILLE	
Mar. 2, 1907	The 24-foot area from Hogan Creek to Florida East Coast Railroad Bridge.	H.Doc 663, 59th Cong., 1st sess.
Nov. 17, 1986	Deauthorized the 24-foot area from Hogan Creek to Florida East Coast Railroad bridge.	P.L. 99-662, Nov. 28, 1986 99th Cong., 2d sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
WRDA Aug. 17, 1999	Project for navigation.	P.L. 106-53, Aug. 17, 1999 106th Cong., 1st sess.
	JACKSONVILLE HARBOR (MILL COVE), FL (See Section 16 of Text)	
Report of the Chief of Engineers Feb. 12, 1982	Enlarge weir structure and west opening controlling flow into Mill Cove, to reduce shoaling and improve navigation as well as circulation.	P.L. 99-662, Nov. 17, 1986 99th Cong., 2d sess
WRDA Oct. 12, 1996	Modification to carry out a project for mitigation consisting of measures for flow and circulation improvement within. Mill Cove.	P.L. 104-303, Oct. 12, 1996 104th Cong.
	JOHN'S PASS, FL (See Section 17 of Text)	
Auth. by Chief of Engineers Dec. 2, 1964 under Sec. 107 of 1960 R&H Act and Sec. 110 of 1966 R&H Act	Channel 10 x 100 feet in gulf, 8 x 100 feet inside pass, 6 x 100 feet to IWW, 2.6 miles long.	
	LAKE WORTH INLET, FL	
WRDA Oct. 12, 1996	Project for navigation and shoreline protection subject to final report to be completed not later than December 31, 1996.	P.L. 104-303, Oct. 12, 1996 104th Cong.
	LONGBOAT PASS, FL (See Section 18 of Text)	
Auth. by Chief of Engineers, Apr. 20, 1976 under Sec. 107 of 1960 R&H Act, as amended	12 x 150 foot entrance channel from Gulf of Mexico to Longboat Bridge; 10 x 100 foot channel from Longboat Bridge northeasterly to IWW; channel from north channel to Cortez Bridge.	
	MANATEE HARBOR, FL (See Section 19 of Text)	
Report of the Chief of Engineers May 12, 1980	Provide for maintenance of the existing 40-foot deep draft navigation channel and turning basin from Tampa Bay to Port Manatee. Initial construction of a widener at Manatee Harbor and deepen area adjacent to berthing area.	P.L. 99-662, Nov. 17, 1986 99th Cong., 2d sess.
WRDA Nov. 28, 1990	Modified the project for navigation authorized by the WRDA of 1986 to construct substantially in accordance with the post authorization change report dated April 1990.	P.L.101-640, Nov. 28, 1990, 101st Cong.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	MAYAGUEZ HARBOR, PR (See Section 20 of Text)	
Aug. 30, 1935	Approach channels 30 feet deep to and along deep-water terminal.	H.Doc. 215, 72nd Cong., 1st sess. & River and Harbor Committee Doc. 1,73rd Cong., 1st sess.
	MELBOURNE HARBOR, FL (See Section 21 of Text)	
Aug. 26, 1937	Channel 8 x 100 feet and a turning basin.	H.Doc. 390, 74th Cong., 2d sess.
	MIAMI HARBOR, FL (See Section 22 of Text) **MIAMI RIVER**	
Jul. 3, 1930	The 15-foot channel in Miami River, 150 feet wide at the mouth.	Specified in Act
PWA Program Sep. 6, 1933	The channel at Dinner Key Airport.	S.Doc. 95, 72nd Cong., 1st sess. and Specified in Act
Jun. 13, 1902	An 18-foot channel in a land cut across the peninsula and construction of the north jetty.	H.Doc. 622, 56th Cong., 1st sess. (Annual Report 1900, p. 1987)
Mar. 2, 1907	Construction of the south jetty and increase of channel width to 100 feet.	Specified in Act
Mar. 4, 1913	Modification of local cooperation requirements imposed by the Act of July 25, 1912.	Specified in Act
Mar. 3, 1925	A channel 25 feet deep with present widths from the ocean to Biscayne Bay, thence 200 feet wide across the bay to but not including the municipal turning basin, and extension of both jetties.	H.Doc. 516, 67th Cong., 4th sess.
Jul. 3, 1930	A channel width of 300 feet across the bay and enlarging the municipal turning basin, with expenditures thereon limited. to $200,000	Rivers and Harbors Committee Doc. 15, 71st Cong., 2d sess.
Aug. 30, 1935	A depth of 30 feet from the ocean to and in the turning basin, with the existing authorized project widths, including the 300-foot width in the channel across the bay.	Sen. Comm. Print. 73rd Cong., 2d sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
Aug. 26, 1937	Extending the turning basin 200 feet to the southward.	Rivers and Harbors Committee Doc. 86, 74th Cong., 2d sess.
Mar. 2, 1945	The Virginia Key improvement.	S.Doc. 251, 79th Cong., 2d sess.
Mar. 2, 1945	For incorporation of the project for Miami River in that for Miami Harbor, the widening at the mouth of Miami River to existing project widths; the channels from the mouth of Miami River to the turning basin and to Government Cut; and the channel from Miami River to the harbor of refuge, provided that local interests contribute one-third of the cost.	H.Doc. 91, 79th Cong., 1st sess.
Jul. 14, 1960	Deletion of Virginia Key development and the Dinner Key, approach channel widening the existing ship channel by easing the ocean bend and increasing the width of the 300-foot wide section to 500 feet, enlarging the existing turning basin 300 feet along both the south and northeasterly sides, and dredging a turning basin along the north side of Fisher Island about 39 acres in extent and 30 feet in depth.	S.Doc. 71, 85th Cong., 2d sess.
Aug. 13, 1968	Enlarging existing entrance channel to 38 x 500 feet, deepening existing 400-foot wide channel across Biscayne Bay to 36 feet; deepening existing turning basins at Biscayne Boulevard terminal and Fisher Island to 36 feet.	S.Doc. 93, 90th Cong., 2d sess.
WRDA Nov. 17, 1986	Deauthorized the widening at the mouth of Miami River to existing project widths; and the channels from the mouth of Miami River to the turning basin, to Government Cut, and to a harbor of refuge in Palmer Lake.	P.L. 99-662, Nov. 17, 1986, 99th Cong., 2d sess
Report of the Chief of Engineers Sep. 25, 1989	The project for navigation, Miami Harbor Channel.	P.L. 101-640, Nov. 28, 1990, 101st Cong
WRDA Oct. 12, 1996	The project for navigation, Miami Harbor Channel subject to a final report to be completed no later than 31 December 1996.	P.L. 104-303, Oct. 12, 1996 104th, Cong
WRDA Aug. 17, 1999	Miami Harbor Channel project modified to include construction of artificial reefs and related environmental mitigation.	P.L. 106-53, Aug. 17, 1999, 106th Cong., 1st sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	NEW PASS, SARASOTA, FL (See Section 23 of Text)	
Auth. by Chief of Engineers Apr. 20, 1964 under Sec. 107 of 1960 R&H Act	10 x 150 foot entrance channel; 8 x 100 foot inner channels; and 8-foot deep turning basins at Payne Terminal and City Pier.	
	OKEECHOBEE WATERWAY, FL (See Section 24 of Text)	
PARA Jun. 26, 1934	Operation and care of locks and dams provided for with funds from R&H appropriations.	Specified in Act
Aug. 26, 1937	New lock and weir structure in St. Lucie Canal.	Rivers and Harbors Committee Doc. 28, 75th Cong., 1st sess.
Mar. 2, 1945	Deepening to 8 feet from Ft. Myers to Jacksonville-Miami waterway near Stuart via channel across lake from Clewiston.	H.Doc. 696, 76th Cong., 3d sess.
Mar. 2, 1945	Channel to yacht basin at Ft. Myers and a basin at Stuart.	H.Doc. 736, 79th Cong., 2d sess.
WRDA Nov. 17, 1986	Deauthorized basin at Stuart.	PL 99-662, Nov. 17, 1986 99th Cong., 2d sess.
Auth. by Chief of Engineers Nov. 5, 1968, under Sec. 107 of 1960 R&H Act	Enlarge existing 8 x 90 foot section of Okeechobee Waterway for about 5 miles upstream from Ft. Myers to 10 x 100 feet.	
	OKLAWAHA RIVER, FL (See Section 25 of Text)	
Sep. 19, 1890	Clearing obstructions for channel 4 feet deep from mouth to Leesburg.	Annual Report 1889, p.1360
Mar. 2, 1907	Channel 6 feet deep from mouth to head of Silver Springs Run.	H.Doc. 782, 59th Cong., 1st sess.
Jun. 25, 1910 Jul. 25, 1912	Maintenance of levels in the lakes at head of river.	Specified in Acts
Jul. 27, 1916	Acceptance of certain artificial waterways in lieu of portions of natural riverbed.	Specified in Act

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
PARA Jun. 26, 1934	Operation and care of lock and dam provided for with funds from appropriations for rivers and harbors.	Specified in Act
WRDA Nov. 17, 1986	Deauthorized channel 6 feet deep from mouth to head of Silver Springs Run	P.L. 99-662, Nov. 17, 1986 99th Cong., 2d sess.
	PALM BEACH HARBOR, FL (See Section 26 of Text)	
Mar. 13, 1934	Maintenance of improvement previously constructed by local interests.	H.Doc. 185, 73rd Cong., 2d sess.
Dec. 10, 1934	Deepening the channels and turning basin, as constructed by local of interests, to 20 feet.	Recommended by Chief Engineers to Public Works Administration Oct. 17, 1934
Aug. 30, 1935	Authorized the work previously approved by Public Works Administration, and widening the channels to existing project dimensions, enlarging the 700-foot square turning basin eastward removing the obstructive point on south side of the and inlet, revetting the banks of the inlet restoring existing jetties.	H.Doc. 185, 73rd Cong., 2d sess. and Rivers and Harbors Comm. H. Doc. 42, 74th Cong., 1st sess.
Mar. 2, 1945	Deepening the channels and turning basin to 25 feet.	H.Doc. 530, 78th Cong., Cong., 2d sess.
May 17, 1950	Extending the turning basin 550 feet southward over a 900-foot width, with a flare to the east; provided that local interests may be reimbursed not to exceed $305,000 for work done by them on this modification subsequent to July 1, 1949.	H.Doc. 704, 80th Cong., 2d sess.
Jul. 14, 1960	An entrance channel 35 feet deep, 400 feet wide, and 0.8 mile long merging with an inner channel 33 feet deep, 300 feet wide and 0.3 mile long, thence flaring into a turning basin, 1,400 feet north-south by a minimum of 1,200 feet east-west.	H.Doc. 283, 86th Cong., 1st sess. (contains latest published map)
Report of the Chief of Engineers Dec. 10, 1985	Assume maintenance of locally expanded turning basin to a depth of 25 feet on north side of existing basin.	P.L. 99-662, Nov.17, 1986, 99th Cong., 2d sess.
WRDA Oct. 12, 1996	**PALM VALLEY BRIDGE, FL (See Section 27 of Text)** Replacement of a two lane bridge.	P.L.104-303 Oct. 12, 1996 104th Cong.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	PONCE DE LEON INLET, FL (See Section 28 of Text)	
Oct. 27, 1965	Widening and deepening channels; jetties on north and south sides of inlet; a weir in the north jetty and an impoundment. basin inside the weir	H.Doc. 74, 89th Cong., 1st sess.
WRDA Aug. 17, 1999	Project for navigation and related purposes.	P.L. 106-53, Aug. 17, 1999, 106th Cong., 1st sess.
	PONCE HARBOR, PR (See Section 29 of Text)	
Mar. 3, 1925	Dredging 3 continuous areas, aggregating 153 acres, to depths of 30, 18, and 9 feet, and construction of a seawall, costs to be shared by U.S. and local interests.	H.Doc. 532, 67th Cong., 4th sess.
Aug. 30, 1935	Modified conditions of local cooperation to provide that U.S. undertake all dredging at Federal expense and return local funds previously contributed for dredging, all other portions of the improvement hereafter to be at the expense of local interests.	Rivers and Harbors Committee Doc. 18, 72nd Cong., 1st sess.
Mar. 2, 1945	Eliminate previously authorized 9-foot dredging area, and provided for dredging 30-foot depth area and 18 acres off the municipal pier and for construction of the breakwater off Punta Carenero.	H.Doc. 745, 79th Cong., 2d sess.
H.R. Sep. 23, 1976, S.R. Oct. 1, 1976	Eliminate previously authorized 18-foot and a portion of the 30-foot project outside the proposed 36-foot and a portion adjacent to the municipal bulkhead. Channel 36 x 600 feet from Caribbean Sea to harbor; channel 36 x 400 feet into harbor; and a 36-foot turning basin.	H.Doc. 532, 94th Cong., Cong., 2d sess.
	PORT EVERGLADES HARBOR, FL (See Section 30 of Text)	
Jul. 3, 1930	Maintenance of harbor constructed by local interests.	Cong., 2d sess.
Aug. 30, 1935	Enlarge entrance channel and complete turning basin to 1,200 feet square.	Rivers and Harbors Committee Doc. 25, 74th Cong., 1st sess.
Jun. 20, 1938	Widen turning basin 350 feet on north side.	H.Doc. 545, 75th Cong., 3d sess.
Jul. 24, 1946	Widen turning basin 200 feet on north side, 500 feet on south side and enlarge flare at entrance channel.	H.Doc. 768, 78th Cong., 2d sess.
Jul. 3, 1958	Deepen and widen entrance channel on a new alignment and increase turning basin in size and depth.	H.Doc. 346, 85th Cong., 2d sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
H.R. May 9, 1974; S.R. May 31, 1974	Deepen and widen entrance channel, enlarge turning basin, widen Pier 7 channel, maintenance of Berth 18 channel, and planning for a south jetty fishing walkway with construction contingent upon need as developed by detailed post authorization studies.	H.Doc. 144, 93rd Cong., 1st sess.
WRDA Jan. 24, 2000	Reimbursement of the non-Federal interest for the project for navigation, $15,003,000 for the Federal share of costs incurred by the non-Federal interest in carrying out the project and determined by the Secretary to be eligible for reimbursement under the limited reevaluation report dated April 1998.	P.L. 106-541, Jan. 24, 2000 106th Cong., 2d sess.
Report of the Chief of Engineers Sep. 23, 1991	Project for navigation.	P.L. 102-580, Oct.31, 1992 102nd Cong., 2d sess.
	REMOVAL OF AQUATIC GROWTH FROM NAVIGABLE WATERS IN THE STATE OF FLORIDA (See Section 31 of Text)	
Mar. 3, 1899	Construction and operation of a suitable vessel and use of log booms for removal of water hyacinths in the navigable waters of the State.	Annual Report 1899
Jun. 13, 1902	Extermination and removal of water hyacinths by any mechanical, chemical or other means.	Specified in Act
Mar. 3, 1905	Prohibits use of any chemical process injurious to cattle.	Specified in Act
	ST. AUGUSTINE HARBOR, FL (See Section 32 of Text)	
Jun. 20, 1938	Channel 27 x 200 feet protected by a groin.	H.Doc. 555, 75th Cong., 3d sess.
May 17, 1950	Channel 16 x 200 feet across bar, and thence 12 feet deep to Intracoastal Waterway; jetty on south side of inlet; future landward extension of groin and jetty; and channel 10 x 100 feet in San Sebastian River.	H.Doc. 133, 81st Cong., 1st sess.
	ST. JOHNS RIVER, FL, JACKSONVILLE TO LAKE HARNEY (See Section 33 of Text)	
Mar. 3, 1899	A channel 13 feet deep and 200 feet wide from Jacksonville to Palatka.	H.Doc. 523, 55th Cong., 2d sess. and Annual Report 1899 p. 1343
Mar. 2, 1919	The improvement of Deep Creek.	H.Doc. 699, 63rd Cong., 2d sess.
Jun. 14, 1880	Two jetties at Volusia Bar (Maintenance only; new work completed under previous project).	Annual Report for 1879, pp. 795-798

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
Jun. 25, 1910	A channel 100 feet wide, 8 feet deep from Palatka to Sanford with a side channel to Enterprise, and thence 5 feet deep to Lake Harney.	H.Doc. 1111, 60th Cong., 2d sess.
Jul. 3, 1930	Cutoffs at Butcher Bend, Shake Creek, and Starks Landing, and easing bends at other points.	H.Doc. 691, 69th Cong., 2d sess.
Mar. 2, 1945	A channel 10 feet deep and 100 feet wide from Palatka to Sanford, with a side channel to Enterprise and with cutoffs and easing of bends. (Cutoffs deauthorized)	H.Doc. 603, 76th Cong., 3d sess.
Mar. 2, 1945	Combining the two projects above into a single project for St. Johns River, FL, Jacksonville to Lake Harney, and for a cutoff 5 feet deep and 75 feet wide between Lake Monroe and the vicinity of Osteen Bridge (Woodruff Creek Cutoff).	H.Doc. 445, 78th Cong., 2d sess.
Jul. 24, 1946	A channel 12 feet deep and 100 feet wide from Palatka to Sanford, and in the branch to Enterprise.	S.Doc. 208, 79th Cong., 2d sess.
	ST. LUCIE INLET, FL (See Section 34 of Text)	
Mar. 2, 1945	Channel 10 x 200 feet.	H.Doc. 391, 77th Cong., 1st sess.
Nov. 7, 1966	Modification to maintain existing channel 6 x 100 feet.	H.Doc. 508, 89th Cong., 2d sess.
H.R. May 9, 1974 S.R. May 31, 1974	Extending north jetty and modifying existing jetty to provide a sand bypass weir section; excavation of sand impoundment basin; construction of south jetty with a walkway for recreational fishing; channel 10 x 500 feet through bar cut, tapering to 150 feet through the inlet, and 100 feet and 7 feet deep to the Intracoastal Waterway; and transfer of 380,000 cubic yards of material to the south beach during each two-year maintenance period.	H.Doc. 294, 93rd Cong., 1st sess.
	SAN JUAN HARBOR, PR (See Section 35 of Text)	
Aug. 8, 1917	Anchorage (inner harbor) area of 206 acres and San Antonio Channel to 30-foot depth.	H.Doc. 865, 63rd Cong., 2d sess.
Sep. 22, 1922	Substitution of a 68-acre area 30 feet deep along southeasterly side of anchorage area, for one 25 acres in extent and of same depth extending easterly from eastern end of the San Antonio project channel.	Specified in Act

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
Jul. 3, 1930	Modified condition of local cooperation.	H.Doc. 45, 71st Cong., 2d sess.
Aug. 30, 1935	Entrance channel across outer bar 38 feet deep and 800 feet wide, and thence across bay to anchorage area (Anegado Reach Channel) 30 feet deep and 700 feet wide and increasing anchorage area to 239 acres to 30-foot depth.	R&H Comm. Doc. 38, 74th Cong., 1st sess.
Aug. 26, 1937	Widening Anegado Reach Channel and increasing anchorage. area to 329 acres	R&H Comm. Doc. 42, 75th Cong., 1st sess.
Oct. 17, 1940	Removal to 8-foot depth of Anegado, Largo, and Capitanejo Shoals, and dredging to 30-foot depth the entrance channel and turning basin to the Graving Dock.	H.Doc. 364, 76th Cong., 1st sess.
Mar. 2, 1945	Maintenance of the 30-foot depth entrance channel and turning basin to the Army Terminal.	Specified in Act
Jul. 3, 1958	Deepening portions of entrance and approach channels and basins to Army Terminal and San Antonio Pier areas to 35-45 feet; new 32-foot depth Puerto Nuevo Channel; new 36-foot depth anchorage.	H.Doc. 38, 85th Cong., 1st sess.
Aug. 4, 1976	A bar channel 48 x 800 feet, shifting the centerline 350 feet west; deepening Anegado Channel in steps from 46 to 40 feet while reducing width to 800 feet; deepening Army Terminal Channel and turning basin to 40 feet while widening the channel to 450 feet; deepening Puerto Nuevo Channel to 40 feet and widening it to 400 feet; deepening Graving Dock Channel to 40 feet at existing 400-foot width; deepening San Antonio Channel to 38 feet at varying widths, minimum of 500 feet; deepening cruise ship basin at 30 x 250 feet; provide a 38-foot depth in Anchorage Area "E" with irregular width; six mooring dolphins for vessels using the area.	H.Doc. 574, 94th Cong., 2d sess.
Report of the Chief of Engineers Dec. 23, 1982	Modification of the authorized project to provide the deepening of the Bar Channel to 48 feet and shifting its alignment 350 feet to the west; deepening Anegado, and Army Terminal to 40 feet; deepening Graving Dock Channel, and Cruise Ship Basin, Puerto Nuevo Channel, and San Antonio Channel to 36 feet; and deepening Anchorage Area "E" to 38 feet while reducing its size and constructing six mooring dolphins within its limits. A 1,500-foot long extension to San Antonio Channel would be added to the Federal project and Sabana approach deepened to 32 feet.	P.L. 99-662 Nov. 17, 1986 99th Cong., 2d sess

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
WRDA Oct. 12, 1996	Modification of the project to deepen the bar channel to depths varying from 49 feet to 56 feet below mean low water with other modifications to authorized interior channels as described in the General Reevaluation Report and Environmental Assessment dated March 1994.	P.L. 104-303, Oct.12, 1996 104th Cong.
	TAMPA HARBOR, FL (See Section 36 of Text) **TAMPA BAY**	
Mar. 3, 1899	For a channel 27 feet deep from the Gulf of Mexico to Port Tampa, 500 feet wide across the bar and 300 feet wide in the bay.	H.Doc. 52, 55th Cong., 3d sess. (Also printed in Annual Report 1899, p. 1640) Channel dimensions specified in Act
Mar. 3, 1905	For a channel depth of 26 feet with sufficient width from the Gulf of Mexico to Port Tampa.	Specified in Act
	TAMPA AND HILLSBOROUGH BAYS	
Jun. 25, 1910	For a depth of 24 feet in Hillsborough Bay.	H.Doc. 634, 61st Cong., 2d sess.
Aug. 8, 1917	For a 27-foot depth from Gulf of Mexico up to and in the several channels of Hillsborough Bay, the widths to be 500 feet on the bar, 300 feet in Tampa Bay, Ybor, and Garrison Channels, and 200 feet in Hillsborough Bay, Sparkman, and Seddon Channels, with turning basins at the mouth of Hillsborough and at Ybor Estuary.	H.Doc. 634, 61st Cong., 1st sess.
	HILLSBOROUGH RIVER	
Mar. 3, 1899	For a 12 x 200 foot channel to within 100 feet of the Lafayette St. highway bridge (maintenance only; new work completed under a previous project under title Improving Hillsborough Bay, FL).	H.Doc. 545, 55th Cong., 2d sess. and Annual Report 1998, pp 1357-1360
	TAMPA HARBOR, FL	
Sep. 22, 1922	Consolidation of the above projects to form a single project for Tampa Harbor.	Specified in Act
Jul. 3, 1930	Increasing the depth of Egmont Channel to 29 feet and the width of Sparkman Channel to 300 feet.	H.Doc. 100, 70th Cong., 1st sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
Aug. 30, 1935	For a depth of 32 feet and a width of 600 feet on Egmont Bar, a depth of 30 feet and a width of 400 feet in Mullet Key Cut, and a depth of 30 feet and a width of 300 feet in all other project channels in Tampa Harbor (except in Hillsborough River and in the channel leading to Alafia River); and for a turning basin 2,000 feet long and 500 feet in maximum width at the entrance to the Port Tampa terminals.	S.Doc. 22, 72nd Cong., 1st sess.
Jun. 20, 1938	For widening the bend between Sparkman Channel and Cut D of Hillsborough Bay Channel by 250 feet; widening Ybor Channel to 400 feet and extending the turning basin at the west end of Garrison Channel (mouth of Hillsborough River) easterly for 300 feet.	S.Doc. 164, 75th Cong., 3d sess.
Jun. 20, 1938	For construction of a breakwater at Peter O. Knight Field, Davis Islands, its maintenance to be assumed by local interest.	Sen. Comm. Print. 76th Cong., 1st sess.
Mar. 2, 1945	For widening Sparkman Channel to 400 feet and Ybor Channel to 500 feet; widening the bend between Sparkman and Garrison Channels an additional 250 feet to extend the turning basin westerly and widening the bend between Seddon and Garrison Channels by 150 feet (in lieu of 300 feet previously authorized) to extend the turning basin easterly.	S.Doc. 183, 78th Cong., 2d sess.
Mar. 2, 1945	For a channel 9 feet deep and 100 feet wide in the Hillsborough River for about 2.4 miles above the upper end of the existing 12-foot channel, and for the removal of obstructions thence to the Florida Avenue Bridge.	H.Doc. 119, 77th Cong., 1st sess.
Mar. 2, 1945	For a channel 25 feet deep and 150 feet wide from the Hillsborough Bay channel to and including a turning basin in the Alafia River. (Revoked by Act of May 17, 1950).	S.Doc. 16, 77th, Cong., 1st sess.
May 17, 1950	For deepening Egmont Channel to 36 feet; enlarging Mullet Key Cut, Tampa Bay Channel, Hillsborough Bay Channel, Port Tampa Channel and Port Tampa turning basin to present project dimensions; deepening Sparkman Channel and Ybor turning basin to 34 feet; a channel 30 feet deep and 200 feet wide from Hillsborough Bay Channel to and including a turning basin in Alafia River, 700 feet wide and 1,200 feet long (in lieu of the improvement previously authorized); and substantial widening at entrance, bends, and turns.	H.Doc. 258, 81st Cong., 1st sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
Sep. 3, 1954	Extended removal of obstructions in Hillsborough River to City Water Works Dam. Maintenance of cleared channel to be assumed by local interests.	H.Doc. 567, 81st Cong., 2d sess.
Oct. 23, 1962	Channel and turning basin at Port Sutton 30 feet deep, Ybor Channel 34 x 400 feet.	H.Doc. 529, 87th Cong., 2d sess.
Dec. 31, 1970	For federal maintenance of Port Sutton Channel, 280 feet wide and an irregularly shaped turning basin both to a depth of 34 feet.	H.Doc. 150, 91st Cong., 1st sess.
Do.	Enlarge entrance channel across Egmont Bar to 46 x 700 feet from the Gulf to Mullet Key.	H.Doc. 401, 91st Cong., 2d sess.
Do.	Enlarge Mullet Key Cut Channel to 44 x 600 feet.	Do.
Do.	Enlarge Tampa Bay Channel to 44 x 500 feet from Mullet Key Cut through Tampa Bay to the junction of Hillsborough Bay and Port Tampa Channels.	Do.
Do.	Enlarge Hillsborough Bay Channel to 44 x 500 feet from the junction with Tampa Bay and Port Tampa Channels to the junction with Port Sutton entrance channel, and thence deepening to a depth of 42 feet at the existing width of 400 feet to the junction with Seddon and Sparkman Channels.	Do.
Do.	Enlarge Port Sutton entrance channel to 44 x 400 feet.	Do.
Do.	Enlarge Port Sutton turning basin to a depth of 44 feet and a turning diameter of 1,200 feet.	Do.
Do.	Deepening Sparkman Channel to 42 x 400 feet.	Do.
Do.	Deepening Ybor Channel to 40 x 300 feet.	Do.
Do.	Enlarge turning basin at the entrance to Ybor Channel to a depth of 42 feet and an additional width of 200 feet on the southwest edge of the present basin.	Do.
Do.	Deepening Port Tampa Channel to 42 feet at its existing width from the junction with Hillsborough and Tampa Bay Channels to the turning basin.	Do.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
Do.	Deepening the Port Tampa turning basin to 42 feet over its existing length of 2,000 feet and width of 900 feet.	Do.
Do.	An entrance channel in East Bay 44 x 400 feet and 500 feet north from the Port Sutton turning basin for a distance of about 2,000 feet.	Do.
Do.	A turning basin in East Bay at a depth of 44 feet and with a turning diameter of 1,200 feet.	Do.
Do.	An approach channel in East Bay 44 x 300 feet north from the East Bay turning basin for a distance of about 2,500 feet.	Do.
Do.	Maintenance of Port Sutton Terminal channel to 44 x 200 feet for a distance of 4,000 feet.	Do.
Aug. 15, 1985	Maintenance of East Bay channel to 34 x 300 feet for a distance of 5,500 feet.	H.Doc. 236, 99th Cong., 1st sess.
Report of the Chief of Engineers Mar. 28, 1988	Port Sutton Channel deepening to 43 feet for a distance of 3,700 feet and a width of 200 feet.	P.L. 100-676, Nov. 17,1988, 100th Cong., 2d sess.
WRDA Nov. 28, 1990	Maintenance of Alafia Channel to a depth of 34 feet, if a Non-Federal Sponsor agrees to reimburse the Secretary	
WRDA Aug. 17, 1999	Project for navigation, Tampa Harbor-Big Bend Channel	P.L. 106-53, Aug. 17, 1999 106th Cong., 1st sess.
WRDA Aug. 17, 1999	Expedite completion of report for Alafia Channel and proceed to project preconstruction, engineering, and design if justified.	P.L. 106-53 Aug. 17, 1999 106th Cong., 1st sess.
WRDA Jan. 24, 2000	Project for navigation, Port Sutton, FL	P.L.106-541 Jan. 24,2000 106th Cong. 2nd sess.
	TAMPA HARBOR BRANCH CHANNELS, FL	
Report of the Chief of Engineers Jan. 25, 1979	Enlarging Hillsborough Bay Cut D, Sparkman Channel, Port Tampa Channel and existing turning basins at the entrance to Ybor Channel and at Port Tampa, all to a depth of 41 feet with varying lengths and widths and deepening Ybor Channel to a depth of 39 feet. This work will be associated with the Main Channel deepening.	P.L. 99-662, Nov. 17, 1986, 99th Cong., 2d sess

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	TAMPA HARBOR EAST BAY CHANNEL, FL	
WRDA Nov.17, 1986	Maintenance dredging at an average annual cost of $471,000.	P.L. 99-662, Nov.17, 1986 99th Cong., 2d sess.
	TAMPA HARBOR ALAFIA RIVER,FL	
Dec. 21, 2000	Deepen and widen the Alafia Channel	P.L. 106-554 Dec. 1,2000 106th Cong. Appendix D
BEACH EROSION CONTROL PROJECTS		
	BREVARD COUNTY, FL (See Section 40 of Text)	
Aug. 13, 1968	Federal participation in cost of shore protection project.	H.Doc. 352, 90th Cong., 2d sess.
WRDA Oct. 12, 1996	Shoreline protection project for periodic nourishment over the 50-year life of the project subject to completion of report no later than Dec. 13, 1996.	P.L.104-303, Oct. 12, 1996 104th Cong.
WRDA Aug. 17, 1999	Use services of independent coastal expert, who shall consider all reverent studies and shall mitigate any damage to the shore protection project that is a result of Federal navigation project. Costs of the mitigation shall be allocated to the Federal navigation project as operation and maintenance costs	P.L. 106-53, Aug. 17, 1999 106th Cong., 1st sess.
WRDA Jan. 24, 2000	Prepare a general reevaluation report on the project of the 7.1 mile reach deleted from the Report of the Chief of Engineers.	P.L. 106-541, Jan. 24, 2000, 106th Cong., 2nd sess.
	BROWARD COUNTY, FL BEACH EROSION CONTROL AND HILLSBORO INLET, FL, NAVIGATION PROJECT (See Section 41 of Text)	
Oct. 27, 1965	Improvement for beach erosion control in Broward County, FL and a combined beach erosion and navigation improvement to Hillsboro Inlet and the shore south thereof to Port Everglades.	H.Doc. 91, 89th Cong., 1st sess.
WRDA Nov. 17, 1986	Deauthorized navigation improvement to Hillsboro Inlet.	P.L. 99-662, Nov. 17, 1986, 99th Cong., 2d sess.
WRDA Nov. 28, 1990	Continued authorization for Hillsboro Inlet dredging for 5 years.	P.L. 101-640, Nov. 28, 1990 101st Cong., 2d sess
WRDA Oct. 12, 1996	Periodic beach nourishment for a period of 50 years beginning on the date of initiation of construction of segments II and III.	P.L. 104-303, Oct. 12, 1996

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
WRDA Aug. 17, 1999	Project for shore protection is modified to authorize the Secretary, on execution of a contract to construct the project, to reimburse the non-Federal interest for the Federal share of the cost of preconstruction planning and design for the project, if work is compatible with and integral to the project.	P.L. 106-53, Aug. 17, 1999, 106th Cong., 1st sess.
	CHARLOTTE COUNTY, FL	
Report of the Chief of Engineers 2 Apr. 1982	Shoreline protection.	P.L. 99-662, Nov. 12, 1986 99th Cong., 2d sess.
	DADE COUNTY, FL (See Section 58 of Text)	
Aug. 13, 1968	Federal participation in cost of shore protection and hurricane-flood control project.	H.Doc. 335, 90th Cong., Cong., 2d sess.
	DADE COUNTY-NORTH OF HAULOVER BEACH, FL (See Section 59 of Text)	
Aug. 15, 1985	Federal participation in cost of shore protection and hurricane-flood control project.	H.Doc. 236, 99th Cong., 1st sess.
Report of the Chief of Engineers Dec. 17, 1983	Extending of existing shore protection project for Dade County to provide for protective beach fill and subsequent nourishment along 2.5 miles of shore north of Haulover Beach Park.	P.L. 99-662 Nov. 17, 1986, 99th Cong., 2d sess
	DUVAL COUNTY, FL (See Section 42 of Text)	
Oct. 27, 1965	Federal participation in cost of local shore protection project.	H.Doc. 273, 89th Cong., 1st sess.
	FORT PIERCE BEACH, FL (See Section 43 of Text)	
River and Harbor Act of 1965	Project for beach erosion control.	
WRDA Oct. 12, 1996	Periodic beach nourishment for a period of 50 years beginning on the date of initiation of construction.	P.L. 104-303, Oct.12, 1996 104th Cong.
WRDA Aug. 17, 1999	Modified to incorporate 1 additional mile into the project in accordance with a final approved general reevaluation report.	P.L. 106-53, Aug. 17, 1999 106th Cong., 1st sess.
	INDIAN RIVER COUNTY, FL (See Section 44 of Text)	
WRDA Nov.17, 1986	The plans provide for a 2.65 mile beach fill along the ocean shore of Vero Beach, a 1.7 mile beach fill along the ocean shore of Sebastian Inlet State Park and for periodic nourishment of the new beaches.	P.L. 99-662, Nov.17, 1986. 99th Cong., 2d sess

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
WRDA Aug. 17, 1999	Reauthorized if determined project is technically sound, environmentally acceptable, and economically justified.	P.L. 106-53, Aug. 17, 199, 106th Cong., 1st sess.
	LEE COUNTY, FL (See Section 45 of Text)	
Dec. 31, 1970	Federal participation in cost of shore protection project.	H.Doc. 395, 91st Cong., 2nd sess.
WRDA Oct. 12, 1996	Modification of the project for shoreline protection, Captiva Island, to reimburse the non-Federal interest for beach nourishment work carried out by such interest as if such work occurred after execution. of the agreement.	P.L. 104-303, Oct. 12, 1996 104th Cong.
WRDA Oct. 12, 1996	Complete a review not later than 6 months after enactment of this Act to determine if periodic beach nourishment is necessary for Captiva Island for a period of 50 years beginning on the date of initiation of construction.	P.L. 104-303, Oct. 12, 1996 104th Cong.
WRDA Aug. 17, 1999	Project for shore protection, Captiva Island, is modified to direct the Secretary to enter into an agreement with the Non-Federal interest to carry out the project in accordance with section 206 of WRDA 1992. The design memorandum approved in 1996 shall be the decision document supporting continued Federal participation in cost sharing of the project.	P.L. 106-53, Aug. 17, 1999, 106th Cong., 1st sess.
WRDA Jan. 24, 2000	Project for shore protection, Gasparilla and Estero Island segments, is modified to authorize the Secretary to enter into an agreement with the non-Federal interest to carry out the project in accordance with section 206 of WRDA 1992 if the Secretary determines that the project is technically sound, environmentally acceptable, and economically justified.	P.L. 106-541, Jan. 24, 2000, 106th Cong., 2nd sess.
	LIDO KEY, SARASOTA COUNTY, FL	
R&H Act of 1970 Sec. 101	Project for shore protection	
WRDA Nov. 17, 1986	Deauthorized.	P.L. 99-662, Nov. 17, 1986 99th Cong., 2d sess.
WRDA Aug. 17, 1999	Reauthorized project for shore protection for a 50-year period.	P.L. 106-53, Aug. 17, 1999, 106th Cong., 1st sess.
	LITTLE TALBOT ISLAND, DUVAL COUNTY, FL	
WRDA Aug. 17, 1999	Project for hurricane and storm damage prevention and shore protection.	P.L. 106-53, Aug. 17, 1999 106th Cong., 1st sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	MANATEE COUNTY, FL (See Section 46 of Text)	
S.R. May 31, 1974 and H.R. Nov. 20, 1975	The plan provides for a level berm 50 feet wide at an elevation 6 feet (MLW) along 3.2 miles of shore on Anna Maria Island and nourishment of entire Gulf shore of that island as needed throughout project life.	S.Doc. 37, 93rd Cong., 1st sess.
	MARTIN COUNTY, FL (See Section 47 of Text)	
WRDA Nov. 28, 1990	Periodic nourishment over the 50 year life of the project	P.L.101-640, Nov.28, 1990 101st Cong., 2d sess.
	MONROE COUNTY, FL	
Report of the Chief of Engineers Apr. 22, 1984	Modification of existing project from 6,200-foot long to 8,770-foot long beach fill stabilized with 2 groins and periodic nourishment.	P.L. 99-662, Nov.17, 1986 99th Cong., 2d sess
	NASSAU COUNTY, FL (See Section 48 of Text)	
Report of the Chief of Engineers May 19, 1986	Improvement for beach erosion control on Amelia Island	P.L. 100-676, Nov.17, 1988, 99th Cong., 2d sess
WRDA Aug. 17, 1999	Modified to construct the project for periodic nourishment over the 50-year life of the project	P.L. 106-53, Aug. 17, 1999, 106th Cong., 1st sess.
	PALM BEACH COUNTY, FL, FROM MARTIN COUNTY LINE TO LAKE WORTH INLET AND FROM SOUTH LAKE WORTH INLET TO BROWARD COUNTY LINE (See Section 49 of Text)	
Oct. 23, 1962	Federal participation in cost of local shore protection project and sand-transfer plant	H.Doc. 164, 87th Cong., 1st sess.
WRDA Oct. 12, 1996	Complete a review not later than 6 months after enactment of this Act to determine if periodic beach nourishment is necessary for a period of 50 years beginning on the date of initiation of construction for Jupiter/Carlin, Ocean Ridge, and Boca Raton North Beach segments.	P.L. 104-303, Oct. 12,1996 104th Cong
	PALM BEACH COUNTY, FL, FROM LAKE WORTH INLET TO SOUTH LAKE WORTH INLET, FL (See Section 50 of Text)	
May 17, 1950	Federal participation in cost of local shore protection project on Palm Beach Island.	H.Doc. 772, 80th Cong., 2d sess.
Jul. 3, 1958	Federal participation in cost of local sand-transfer plant at Lake Worth Inlet and shore protection project.	H.Doc. 342, 85th Cong., 2d sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	PINELLAS COUNTY, FL (See Section 51 of Text)	
Nov. 7, 1966	Federal participation in cost of shore protection project.	H.Doc. 519, 89th Cong., 2d sess.
Report of the Board of Engineers for Rivers and Harbors Apr. 23, 1985	Restoration of 5,000 feet of beach at Clearwater Beach Island, 49,000 feet of beach at Sand Key, 92,000 feet of beach at Treasure Island, and construction of 600 feet of revetment at Long Key. Also, re-nourishment of each island	P.L. 99-662, Nov.17, 1986. 99th Cong., 2d sess
	SARASOTA COUNTY, FL (See Section 53 of Text)	
Report of the Chief of Engineers Feb.28, 1986	Shoreline protection along 12,600 feet of shoreline on central Longboat and 21,100 feet on Manasota Key in the vicinity of Venice, Florida and periodic nourishment of these areas	P.L. 99-662 Nov.17, 1986, 99th Cong., 2d sess.
	ST. JOHNS COUNTY, FL (See Section 52 of Text)	
Report of the Chief of Engineers Feb. 26, 1980	Shoreline protection along 2.5 miles of problem area in the St. Augustine Beach and Coquina Gables area and periodic nourishment.	P.L. 99-662 Nov.17, 1986, 99th Cong., 2d sess
WRDA Aug. 17, 1999	Modified to include navigation mitigation.	P.L. 106-53, Aug. 17, 1999 106th Cong., 1st sess.
FLOOD CONTROL PROJECTS	**CEDAR HAMMOCK (WARES CREEK), FL (See Section 56 of Text)**	
WRDA Oct. 12, 1996	Project for flood control.	P.L. 104-303, Oct.12, 1996 104th Cong
	FOUR RIVER BASINS, FL (See Section 60 of Text)	
Oct. 23, 1962	Control of floods and improvement of drainage, and for water conservation through construction of necessary canals, levees, reservoirs and control structures.	H.Doc. 585, 87th Cong., 2d sess.
WRDA Nov. 17, 1986	Deauthorized Anclote River control structure and channel improvement.	P.L. 99-662, Nov. 17, 1986 99th Cong., 2d sess.
WRDA Jan. 24, 2000	Restudy flooding and water control issues in the upper Ocklawaha River basin, south of the Silver River, and the Apopka River and Palatlakaha River basins.	P.L. 106-541, Jan. 24, 2000, 106th Cong., 2nd sess.
	GUANAJIBO RIVER, PR	
WRDA Aug. 17,1999	Project for flood control.	P.L. 106-53 Aug. 17, 1999 106th Cong., 1st sess.
	PORTUGUES AND BUCANA RIVERS, PR (See Section 61 of Text)	
	LAGO de CERRILLOS, PR	
Dec. 31, 1970	Multiple purpose dam and lake for flood control, water supply and recreation.	H.Doc. 422, 91st Cong., 2d sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	LAGO de PORTUGUES, PR Multiple purpose dam and lake for flood control, water supply and recreation.	
	PONCE, PR Diversion and enlargement of existing channels through Ponce for flood control.	
	RIO DE LA PLATA, PR (See Section 62 of Text)	
Report of the Chief Engineers Jan. 1989	Project for flood control.	
	RIO GRANDE DE ARECIBO, PR (See Section 63 of Text)	
WRDA Oct. 12, 1996	Project for flood control.	P.L. 104-303, Oct. 12, 1996 104th Cong.
	RIO GRANDE DE LOIZA, PR (See Section 64 of Text)	
Report of the Chief of Engineers Mar. 5, 1992	Project for flood control.	P.L. 102-580, Oct. 31, 1992 102nd Cong., 2d sess.
	RIO GRANDE DE MANATI, BARCELONETA, PR (See Section 65 of Text)	
WRDA Aug. 17, 1999	Project for flood control.	P.L. 106-53, Aug. 17, 1999 106th Cong., 1st sess.
	RIO NIGUA, SALINAS, PR	
WRDA Aug. 17, 1999	Project for flood control.	P.L. 106-53, Aug. 17, 1999 106th Cong., 1st sess.
	RIO PUERTO NUEVO, PR (See Section 66 of Text)	
Report of the Chief of Engineers 25 Apr. 1986	Project for flood control.	P.L. 99-662, Nov. 17, 1986 99th Cong., 2d sess.
	SAVAN GUT, ST. THOMAS, VI	
Sec. 205 of the Flood Control Act of 1948	Project for flood control. Increased maximum allotment to $100,000.	P.L. 858, Jun. 30, 1948, 80th Cong, 2d sess.
WRDA Nov. 28, 1990	Set maximum amount allotted under Section 205 of the Flood Control Act of 1948 at $10,000,000.	P.L.101-640, Nov. 28, 1990, 101st Cong., 2d sess.
	TURPENTINE RUN, ST. THOMAS, VI	
WRDA Oct. 31, 1992	Project for flood control.	P.L. 102-580, Oct. 31, 1992 102nd Cong., 2d sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
RESTORATION PROJECTS		
	CENTRAL AND SOUTHERN FLORIDA, FL (See Section 57 of Text)	
Jun. 30, 1948	First phase of comprehensive plan for flood control and other purposes.	H.Doc. 643, 80th Cong., 2d sess. (Contains latest published map)
Sep. 3, 1954	Modification and expansion of authorization to include entire comprehensive plan of improvement.	H.Doc. 643, 80th Cong., 2d sess.
Jul. 14, 1960	Canals, levees, and water-control and drainage structures in the Nicodemus Slough area, Glades County.	S.Doc. 53, 86th Cong., 1st sess.
Oct. 23, 1962	Flood protection on Boggy Creek, near Orlando.	S.Doc.125, 87th Cong., 2d sess.
Do.	Flood protection in the Cutler Drain area, near Miami.	S.Doc. 123, 87th Cong., 2d sess.
Do.	Flood control and drainage works for South Dade County.	S.Doc 138, 87th Cong., 2d sess.
Do.	Project Shingle Creek between Clear Lake and Lake Tohopekaliga for flood control and major drainage, including development of. Reedy Creek Swamp	S.Doc. 139, 87th Cong., 2d sess.
Do.	Improvement of easterly section of West Palm Beach Canal for flood control and major drainage.	S.Doc. 146, 87th Cong., 2d sess.
Oct. 27, 1965	Primary works for flood control and major drainage in southwest Dade County.	S.Doc. 20, 89th Cong., 1st sess.
Do.	Primary works for flood control and major drainage in Hendry County.	H.Doc. 102, 88th Cong., 1st sess.
Aug. 13, 1968	Gravity drainage in Martin County and distribution of available water supplies to portions of Martin and St. Lucie Counties.	S.Doc. 101, 90th Cong., 2d sess.
Do.	Improvement of supply, distribution and conservation of water resources in Central and Southern Florida, including Lake Okeechobee agricultural area, Everglades National Park and other related areas.	H.Doc. 369, 90th Cong., 2d sess.
Approved Dec. 17, 1970 under the provisions of Section 201 of the Flood Control Act of 1965	Navigation improvements suitable for recreational craft.	H.Doc. 394, 91st Cong., 2d sess.

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
WRDA Nov. 17, 1986	Deauthorized flood protection on Boggy Creek, near Orlando; primary works for flood control and major drainage in southwest Dade County; and navigation improvements suitable for recreational craft.	P.L. 99-662, Nov.17, 1986, 99th Cong., 2d sess
WRDA Nov. 17, 1988	Extended modified water delivery schedules to Everglades National Park.	P.L. 100-676, Nov. 17,1988,
Everglades National Park Protection and Expansion Act of 1989	Construct modifications to the Central and Southern Florida Project to improve water deliveries into the park and shall, to the extent practicable take steps to restore the natural hydrological conditions within the park.	P.L.101-229, Dec.13, 1989 101st Cong., 2d sess
WRDA Oct. 12, 1996	Modification of project for flood protection of West Palm Beach (C-51) to provide for the construction of an enlarged storm water detention area, Storm Water Treatment Area 1 East.	P.L. 104-303, Oct.12, 1996 104th Cong.
WRDA Oct.12, 1996	Modification of the project to implement the recommended plan of improvement for South Dade County (C-111), including acquisition by non-Federal interests of such portions of the Frog Pond and Rocky Glades areas as are needed for the project.	P.L. 104-303, Oct. 12,1996 104th Cong.
	KISSIMMEE RIVER RESTORATION, FL (See Section 77 of Text)	
WRDA Nov. 28, 1990	Conduct a feasibility study for the purpose of determining modifications of the flood control project for central and southern Florida, authorized by section 203 of Flood Control Act of 1948 (62 Stat. 1176), which are necessary to provide a comprehensive plan for the environmental restoration.	P.L. 101-640, Nov.28, 1990 101st Cong., 2d sess
Report of the Chief of Engineers Mar. 17, 1992	Project for the ecosystem restoration, to construct the headwaters revitalization project, and any modifications for the environmental restoration of the Kissimmee River Basin, ensuring that implementation of the project to restore the Kissimmee River will maintain the same level of flood protection as is provided by the current flood control project.	P.L. 102-580, Oct.31, 1992 102nd Cong., 2d sess.
	EVERGLADES AND SOUTH FLORIDA ECOSYSTEM RESTORATION (See Section 78 of Text)	
WRDA Oct. 12, 1996	Project consists of a comprehensive plan for the purpose of restoring, preserving, and protecting the South Florida ecosystem. The comprehensive plan shall provide for the protection of water quality in, and the reduction of the loss of fresh water from, the Everglades. The comprehensive plan shall include such features as are necessary to provide for the water-related needs of the region, including flood control, the enhancement of water supplies, and other objectives served by the Central and Southern Florida project.	P.L. 104-303, Oct. 12, 1996 104th Cong.,

TABLE 9-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
WRDA Aug. 17, 1999	Extension of program from 1999 until 2003 and amendment to credit and reimbursement of past and future activities to non-Federal sponsor.	P.L. 106-53 Aug. 17, 1999 106th Cong., 1st sess.
WRDA Jan. 24, 2000	Specific authorization for Pilot Projects and Initial Projects.	P.L. 106-541, Jan. 24, 2000, 106th Cong., 2nd sess.
	HILLSBORO AND OKEECHOBEE AQUIFER, FLORIDA	
WRDA Aug. 17, 1999	The project for aquifer storage and recovery described in the Central and Southern Florida Water Supply Study and House Document 369	P.L. 106-53 Aug. 17, 1999 106th Cong., 1st sess.
	FLORIDA KEYS WATER QUALITY IMPROVEMENTS	P.L. 106-554 Dec. 21, 2000 106th Cong.

TABLE 9-C OTHER AUTHORIZED NAVIGATION PROJECTS
(See Section 38 of Text)

Project	For Last Full Report See Annual Report For	Cost to Sep. 30, 2003 Construction	Cost to Sep. 30, 2003 Operation and Maintenance
Anclote River, FL	1974	$ 267,427	$ 2,754,269
Aguadilla Harbor, PR	-	-	738,481
Aquatic Plant Control, FL (R&H Acts of 1958 & 1962)	1968	1,640,997 [1]	-
Atlantic Gulf Ship Canal, FL	1939	5,099,153	-
Bayport, FL[3]	1972	58,524	-
Cedar Island, Keaton Beach, FL	-	-	54,969
Cedar Keys Harbor, FL	1977	168,569 [2]	76,023
Christiansted Harbor, St. Croix, VI[6]	1964	303,317	61,559
Clearwater Pass, FL[21]	1980	46,349 [3]	2,438,390
Courtnay Channel, FL[1]	1940	22,846	26,779
Crystal River, FL[1]	1941	25,000	152,208
Everglades Harbor, FL[1]	1964	221,509 [4]	51,034
Fajardo Harbor, PR[3]	1945	-	-
Guayanes Harbor, PR[3]	1945	-	-
Gulf Intracoastal Waterway St. Marks to Tampa Bay, FL[3]	1974	38,850	-
Hillsboro Inlet, FL[24]	1965	-	-
Homosassa River, FL[1]	1937	3,999 [5]	26,454
Hudson River, FL[3]	1974	9,889	-
Intracoastal Waterway, Miami to Key West, FL[3]	1963	243,079	28,046
Key West Harbor, FL[1]	1972	1,548,892 [6]	534,623
Kissimmee River, FL[1]	1931	23,479	112,954
Lake Crescent and Dunns Creek, FL[11]	1931	10,276	9,035
Largo Sound Channel, FL[12]	1966	117,443 [7]	51,149
Little Manatee River, FL[11]	1949	11,903 [8]	-
Manatee River, FL[15]	1970	123,350	194,516
Miami River, FL	-	-	787,681
New River, FL[1]	1956	36,518	31,296
Orange River, FL[1]	1962	2,000	24,918
Ozona, FL, channel and turning basin[1]	1963	105,527	15,089
Palm Beach, FL, side channel and basin[3]	1946	-	-
Pass-A-Grille Pass, FL[16]	1966	41,297 [9]	60,686
Pithlachascotee River, FL	1973	400,000[10]	261,401
Rice Creek, FL[1]	1957	85,208[11]	18,814
St. Petersburg Harbor, FL	1983	255,608[12]	10,916,170 [13]
St. Thomas Harbor, VI[3]	1949	1,989	-
Sediment Management Pilot Program	-	-	190,779
Steinhatchee River, FL[1]	1940	135,053	63,343
Suwannee River, FL[15]	1977	76,418[14]	1,089,488
Withlacoochee River, FL[15]	1969	614,912[15]	658,963

[1] Excludes $1,640,997 contributed funds.
[2] Includes $82,500 expended under previous project. Excludes $1,473 contributed funds.
[3] Excludes $42,783 contributed funds.
[4] Excludes $36,000 contributed funds.
[5] In addition, $1,000 expended from contributed funds.
[6] Includes $27,500 for new work under previous project. Excludes $35,371 contributed funds.
[7] Includes $25,008 for detailed project report but excludes $86,716 expended from contributed funds.
[8] Expended on restudy.
[9] Excludes $41,297 contributed funds.
[10]Excludes $215,728 contributed funds.
[11] Excludes $93,000 contributed funds.
[12] Includes $32,689 under previous project.
[13] Includes $20,532 under previous project.
[14] Includes $10,154 expended under previous project.
[15] Includes $30,000 expended under previous project.

TABLE 9-D OTHER AUTHORIZED BEACH EROSION PROJECTS
(See Section 54 of Text)

Project	For Last Full Report See Annual Report For	Cost to Sep 30, 2002 Construction	Cost to Sep 30, 2002 Operation and Maintenance
Cape Florida State Park, FL	1969	$34,862	$ -
El Tuque Beach, Ponce, PR	1985	1,396,730	-
Lee County, FL	1971	-	-
Punta Salinas, PR	1984	855,511	-
Palm Beach County, FL, from Lake Worth Inlet to South Lake Worth Inlet	1970	195,140	6,257
San Juan, PR	1965	-	-

TABLE 9-E OTHER AUTHORIZED FLOOD CONTROL PROJECTS
(See Section 67 of Text)

Project	For Last Full Report See Annual Report For	Cost to Sep 30, 2003 Construction	Cost to Sep 30, 2003 Operation and Maintenance
Arch Creek, Dade County, FL	1960	$66,485 [1]	-
Biscayne Bay, FL, Hurricane Protection [2]	1966	-	-
Hillsborough Bay, FL [2]	1969	-	-
Phillippi Creek Basin, FL [2]	1966	-	-

[1] Excludes $11,734 cost of preauthorization studies. Project was authorized February 20, 1959, by Chief of Engineers under Section 205 of the 1948 Flood Control Act as modified by P.L. 685, 84th Congress.

[2] Deauthorized by Public Law 93-251, Section 12.

TABLE 9-G DEAUTHORIZED PROJECTS

Project	For Last Full Report See Annual Report For:	Date and Authority	Federal Funds Expended	Contributed Funds Expended
Central and Southern Florida (S.W. Dade Co. Area)	-	1 Jan 90 WRDA 86	-	-
Central and Southern Florida (Boggy Creek Basin)	-	do	-	-
Central and Southern Florida (Cutler Drainage Area)	-	9 Jul 95 PL 99-662	-	-
Central and Southern Florida (Hendry County)	-	do	-	-
Central and Southern Florida (Martin County Recreation)	-	do	-	-
Central and Southern Florida (Nicodemus Slough)	-	do	-	-
Central and Southern Florida (Reedy Creek Swamp)	-	do	-	-
Central and Southern Florida (Small Boat Harbor)	-	1 Jan 90 WRDA 86	-	-
Charlotte County, FL	-	18 Nov 91 PL 99-662	-	-
Cross Florida Barge Canal, FL	FY 2002	Jan 90 WRDA 90 PL 101-64	$66,097,128	-
Four River Basin (Anclote River C-532, S-552), FL	-	1 Jan 90 WRDA 86	-	-
GIWW St. Marks to Tampa Bay, FL	-	do	38,850	-
Key West, FL	-	do	104,140	-

TABLE 9-G DEAUTHORIZED PROJECTS

Project	For Last Full Report See Annual Report For:	Date and Authority	Federal Funds Expended	Contributed Funds Expended
Mullet Key, FL	-	do	436,201	187,133
Palm Beach to Lake Worth Inlet (1950 Act)	-	19 Jul 92 PL 99-662	195,140	781,188
San Juan and Vicinity, PR	-	1 Jan 90 WRDA 86	13,774,968	100,000
Virginia Key and Key Biscayne, FL	-	do	1,667,220	714,522

TABLE 9-H NAVIGATION PROJECTS ON WHICH RECONNAISSANCE AND CONDITION SURVEYS ONLY WERE CONDUCTED DURING FISCAL YEAR
(See Section 37 of Text)

Project	Cost Incurred During Period
Arecibo, PR	53,074
Bakers Haulover Inlet, FL	29,704
Caloosahatchee Anclote River, FL	43,137
Fort Myers Beach, FL	34,126
Fort Pierce Harbor,	21,004
Horseshoe Cove, FL	30,158
IWW Jacksonville – Miami, FL	14,029
Johns Pass, FL	28,152
Long Boat Pass, FL	28,152
Mayaguez Harbor, PR	47,102
Naples to Gordon Pass, FL	7,493
New Pass, Sarasota, FL	7,493
Okeechobee Waterway, FL	123,843
Palm Beach, FL	19,186
Pithlachascotee River, FL	34,126
Ponce Harbor, PR	67,041
St. Augustine, FL	17,948
St. Lucie Inlet, FL	18,731
St. Petersburg Harbor, FL	51,359
Venice Inlet & IWW, FL	38,450
Withlacoochee River, FL	37,098
Total	$ 751,406

TABLE 9-I CANAVERAL HARBOR, FL PROJECT DATA RELATIVE TO LOCK (See Section 5 of Text)

Distance to nearest town	9.9 miles via 12-foot barge canal and Intracoastal Waterway
Name of nearest town	Cocoa, FL
Distance from Intracoastal Waterway	6.5 miles
Lock dimensions	90^{9} wide; 600^{9} long[1]
Lift	Varies with tide
Depth of Sills (mlw, ocean)	14 feet
Character of foundation	Piles in sand
Year completed and opened to navigation	1965
Contract cost	$2,979,670

[1] 56x400 feet authorized. At request of NASA lock was constructed 90 feet wide with NASA bearing additional cost ($700,000). Length increased to 600 feet to be compatible with increased width. Operation and maintenance of lock is a Federal responsibility.

TABLE 9-L OKEECHOBEE WATERWAY OPERATIONS AND RESULTS DURING FISCAL YEAR (See Section 24 of Text)

Work Performed	Cost
Operations and Maintenance:	
Operations:	
Operations of locks, dams, and reservoirs	$1,628,106
Operation of service utilities	0
Operation of flood control structures	0
Environmental studies and monitoring	53,000
Natural resource management	0
Recreation management	411,081
Water Control Management	0
Condition and operation studies and activities	0
Real estate management	97,520
National emergency preparedness program	0
Prevention of obstructive and injurious deposits	0
General regulatory functions	0
Construction Management	0
Sub-Total	$2,189,707
Maintenance:	
Lands and damages	0
Maintenance of locks	118,681
Maintenance of non-recreational buildings and grounds	0
Maintenance of recreational facilities	0
Maintenance of permanent operating equipment non-recreational	58,937
Bank stabilization, maintenance of revetments and dikes	0
Channel and canal maintenance	460,070
Engineering and Design	106,368
Construction Management	0
Real Estate management	3,773
Natural Resource Management	101,744
Security Upgrades	235,057
Sub-Total	$1,084,630
Total	$3,274,337

TABLE 9-M REMOVAL OF AQUATIC GROWTH FROM NAVIGABLE WATERS IN THE STATE OF FLORIDA CONTROL OPERATIONS (See Section 31 of Text)

Locality	Cost
Operation of locks, dams, and reservoirs (channels and canals)	$ 2,620,609
Operation of service facilities	0
Operation of power plants	0
Natural resource management	1,341,602
Recreation management	0
Water control management	0
Condition and operation study	0
Project operations management	0
Maintenance of recreational facilities	0
Maintenance of non-recreational permanent operating equipment	0
Maintenance of non-recreational buildings and grounds	0
Engineering and Design	0
Construction Management	0
Credit	0
Total	$ 3,957,194

TABLE 9-O CENTRAL AND SOUTHERN FLORIDA PROJECT

CONSTRUCTION COMPLETED DURING FISCAL YEAR 2002
(See Section 57 of Text)

Feature	Construction Period	Date transferred to Flood Control District for Operation and Maintenance
None to Report		

TABLE 9-P CENTRAL AND SOUTHERN FLORIDA PROJECT
STATUS OF WORK UNDER CONTRACT AT END OF FISCAL YEAR 2003
(See Section 76 of Text)

Feature	Construction Started	Approx. % Complete
Recreation:		
Channels and Canals:		
Kissimmee Reach 1 Backfill	September 2000	86
East Coast C-4 Structure (S-380)	September 2000	99
Western C-11 (S-381)	September 2000	56
Pumps:		
C-51 Machinery	May 1999	92
C-51 Pump Station S-319	April 2000	99
Western C-11 (PS 9A)	September 2000	99
C-51 Pump Station S-362	September 2000	95
C-51 Pump Station 361	April 2001	95
Spillway:		
C-51 155A	May 2001	97
Kissimmee Istokpoga	July 2002	18
Facility:		
Melalueca Quarantine Facility	September 2001	80
Levees:		
C51 Sta – 1 east (East)	August 2002	76
C51 Sta – 1 east (West)	July 2002	45
C51 Grading contract	August 2001	94

TABLE 9-Q CENTRAL AND SOUTHERN FLORIDA PROJECT PRINCIPAL FEATURES OF HURRICANE GATES (See Section 76 of Text)

Gate[1] No.	Nearest Town Name	Distance (miles)	Depth Over Sills (feet)	Character of Foundation	Year Completed	Actual Cost
2.	Clewiston, FL	0.5	10	Pile	1935	$309,748
3.	Lake Harbor, FL	0.5	10	Rock	1935	316,938
4.	Belle Glade, FL	4.0	10	Rock	1935	350,025
5.	Canal Point, FL	0.0	10	Rock	1935	262,465
6.	Okeechobee, FL	0.5	7	Pile	1936	373,273

[1]All are 50 feet wide with available length unlimited. They are constructed of concrete with steel sector Gate gates and have no lift. No. 6 has an auxiliary culvert spillway with automatic control. Moore Haven Lock serves as Hurricane Gate Structure 1.

TABLE 9-R CENTRAL AND SOUTHERN FLORIDA PROJECT LOCAL COOPERATION (See Section 76 of Text)

Flood Control Act	Work Authorized	Cash Contribution[1]
Jun. 30, 1948	First phase of comprehensive plan	15.0
Sep. 3, 1954	Second phase of comprehensive plan	20.0
Jul. 14, 1960	Nicodemus Slough area	31.5
Oct. 23, 1962	West Palm Beach Canal	66.3
	Boggy Creek Basin	29.7
	Shingle Creek Basin	25.9
	South Dade County area	19.2
	Reedy Creek Swamp	50.0
Oct. 27, 1965	Southwest Dade County	46.0
	Hendry County area	19.5
Aug. 13, 1968	Martin County	
	Flood Control Features	34.0
	Irrigation Features	49.0
	Backflow Features	20.0
P.L. 89-72	Recreation Features	50.0
	Water Resources - St. Lucie	20.0
	Recreation Features	50.0
Approved Dec. 17, 1970 under provisions of Section 201 of 1965 Flood Control Act (Deauthorized Jan. 1, 1990 by P.L. 99-662)	Navigation improvements suitable for recreational craft	50.0
P.L. 99-662	Upper St. Johns River Basin - non-structural flood protection	25.0

[1] Computed on total contract cost and supervision and administration except for Reedy Creek Swamp and recreation features which are computed on all costs, including engineering and design and land.

TABLE 9-S CENTRAL AND SOUTHERN FLORIDA PROJECT OPERATIONS AND RESULTS DURING FISCAL YEAR (See Section 76 of Text)

Work Performed	Cost
New Work:	
Channels and canal	$ 0
Lands and damage	14,941,000
Levees	17,468,000
Pumping plants	12,195,000
Recreation	3,688,000
Floodway control	1,910,000
Feasibility	2,952,000
Engineering and design	41,177,000
Construction management	3,029,000
Subtotal	$97,360,000
Operations:	
Operation of locks, dams, reservoirs and performance system	700,345
Operation of service facilities	0
Operation of flood control structures	1,864,583
Environmental studies and monitoring	1,849,625
Natural resource management	185,486
Recreational management	467,421
Operation and maintenance of recreation facilities, service and maintenance of traffic counters, master planning	0
Condition and operation studies, periodic inspections, dam safety studies	677,318
Roads, railroads, and bridges	0
Water control management	1,489,933
National preparedness program	0
Prevention of obstructive and injurious deposits	0
General regulatory	0
Real estate management	69,813
Project operations management	0
Subtotal	$ 7,302,723
Maintenance:	
Lands and damages	0
Maintenance of dams	0
Maintenance of locks	287,454
Maintenance of flood control structures	4,111,623
Maintenance of levees and floodwalls	2,762,994

TABLE 9-S CENTRAL AND SOUTHERN FLORIDA PROJECT OPERATIONS AND RESULTS DURING FISCAL YEAR (See Section 57 of Text)

Work Performed	Cost
Maintenance of recreational facilities	0
Maintenance and purchase of non-recreational permanent operating equipment	237,348
Bank stabilization	0
Utilities, supplies, and maintenance of non-recreational buildings and grounds	0
Channel and canal maintenance	218,701
Engineering and Design	1,078,926
Construction Management	281,461
Real Estate Management	5,412
Sub-Total	$ 8,983,919
Total	$113,648,443

TABLE 9-T FOUR RIVER BASINS, FLORIDA PROJECT CONDITION AT END OF FISCAL YEAR 2003 (See Section 60 of Text)

Feature	Construction Period	Date transferred to Southwest Florida For Operation and Maintenance
Bridges:		
B-194	Jul 1968 - Mar 1970	Not transferred
Alteration of Facilities B-195	May 1971 - Jan 1973	Do.
B-594	Jan 1973 - Jan 1974	Do.
Alteration of Facilities B-196	Oct 1972 - Jan 1975	Do.
SCL RR Bridge, B-196	Dec 1972 - Jul 1975	Jul 1975
Channels and Canals:		
C-135	May 1967 - Dec 1968	Dec 1968
C-135, Sec. 1A	Jul 1966 - Aug 1967	Oct 1967
C-135, Sec. 1B	May 1968 - Sep 1972	Not transferred
C-135, Sec. 1C & 2	Jan 1971 - Dec 1973	Not transferred
C-135, Sec. 3A	Dec 1972 - Apr 1975	Oct 1977
C-135, Sec. 3B	Feb 1975 - Aug 1977	Not transferred
C-135, Sec. 4A	Apr 1976 - Jan 1979	Not transferred
C-136	Aug 1975 - May 1977	Nov 1977
C-231, Phase I	Jul 1973 - Apr 1975	Dec 1975
C-231, Phase II	Jul 1973 - Jan 1974	Dec 1975
C-331	Jul 1967 - Sep 1968	Sep 1968
C-531	Apr 1966 - Jan 1969	Apr 1969
C-534	Jun 1979 - Jul 1971	Nov 1971
C-135	Mar 1977 - Oct 1980	
Structures:		
S-160	May 1967 - Dec 1968	Dec 1968
S-161	Aug 1975 - May 1977	Nov 1977
S-162	Apr 1975 - Jun 1977	Apr 1977
S-353	Jul 1967 - Sep 1968	Nov 1968
Moss Bluff Lock and Spillway	Apr 1967 - Mar 1969	Dec 1975
S-551	Jul 1970 - Feb 1972	Not transferred
Levees:		
L-212, Sec. 1	Jun 1968 - Jul 1970	Dec 1975
L-212, Sec. 2	Jul 1970 - Sep 1971	Dec 1975
L-112	Mar 1977 - Oct 1980	Oct 1980
L-112 & Floodway	May 1978 - Jul 1981	Jan 1983
S-155	May 1978 - Jul 1981	Jan 1983
S-163	May 1978 - Jul 1981	Jan 1983
S-159 Middle & Lower	Apr 1979 - Aug 1981	Oct 1981
S-159 Upper	Jun 1979 - Sep 1981	
Recreation:		

TABLE 9-T FOUR RIVER BASINS, FLORIDA PROJECT CONDITION AT END OF FISCAL YEAR 2003

(See Section 60 of Text)

Feature	Construction Period	Date transferred to Southwest Florida For Operation and Maintenance
Morris Bridge &		
Flint Creek Sites	Dec 1982 - Aug 1984	Jan 1985
Dead River Sites	Mar 1985 - Jul 1986	Dec 1986

TABLE 9-U FOUR RIVER BASINS, FLORIDA PROJECT MOSS BLUFF LOCK

(See Section 60 of Text)

Nearest town	20 miles
Name of nearest town	Ocala, FL
Distance above mouth of river	65.5 miles
Lock dimensions	30 x 125 feet
Normal lift	18.0 feet
Elevation of normal pool surface	58 feet
Depth of sills	12 feet
Character of foundation	Piles in sand
Kind of dam	None
Type of construction	Reinforced concrete
Percent complete	100
Estimated cost (including dam and spillway)	$1,990,138

TABLE 9-V FLOOD CONTROL WORK UNDER SPECIAL AUTHORIZATION PURSUANT TO SECTION 205, PUBLIC LAW 685, (PREAUTHORIZATION) (See Section 69 of Text)

Study Identification	Period Costs
Arroyo, PR	$ 40,639
Black Creek, FL	22,726
Cedar Creek, FL	2,465
Colosa Valley AG Area 205	58,465
Estate Mon Bijou, St. Croix, VI	5,705
Juaca Community, Santa Isabel, PR	28,113
La Boca, Cacheta, and Punta Palmas, PR	55,459
LaGrange Gut, Frederiksted, VI	5,044
Plant City, FL	5,470
Rio Anton Ruiz-Runta, Santiago, PR	127,123
Rio Culebrinas, Aguada, PR	38,941
Rio Descalabrado, Santa Isabel, PR	100,556
Rio El Ojo De Agua, PR	62,094
Rio Fajardo, PR	244,033
Rio Grande de Jayuya, PR	28,990
Rio Guamani, Guayama, PR	-63,664
Rio Jacaguas at Juana Diaz, PR	59,399
Rio Loco, Guanica, PR	161,003
Rio Orocovis, PR	32,704
Rio Patillas, PR	55,381
Savan Gut, St. Thomas, VI	6,562
Sec 205 Coordination Account	33,117
Turpentine Run, St. Thomas, VI	5,352
Whitaker Bayou, FL	19,939
TOTAL FY COST	$ 1,135,616

MOBILE, AL., DISTRICT

This district comprises a small portion of southeastern Tennessee, western George, western Florida, all of Alabama south of Tennessee River Basin, eastern Mississippi, and a small portion of southeastern Louisiana embraced in drainage basins tributary to the Gulf of Mexico, west of Aucilla River Basin, to and including the Pascagoula River Basin. The Pearl River Basin, Mississippi was included as part of the Mobile District until October 1, 1981, when responsibilities were transferred to Vicksburg District, Lower Mississippi Valley Division. A section of the Gulf Intracoastal Water from St. Marks, Florida, to Lake Borgne Light No. 29, Louisiana is also within Mobile District.

IMPROVEMENTS

Navigation **Page**

Page

Flood Control

Navigation

1. ALABAMA-COOSA RIVERS, AL AND GA

Location. Alabama River is formed 18 miles above Montgomery, Alabama, by the junctions of the Coosa and Tallapoosa Rivers. It then flows southwesterly through Alabama 318 miles and unites with the Tombigbee River about 45 miles north of Mobile, in southwestern Alabama, to form the Mobile River. (See Geological Survey maps for central and southwest Alabama.) The Coosa River is formed at Rome, Georgia, in northwest Georgia, by the junction of the Oostanaula and Etowah Rivers, which have their sources in southeastern Tennessee and northern Georgia. From Rome the Coosa River flows southwesterly through Georgia and Alabama 286 miles and unites with the Tallapoosa River near Montgomery, Alabama, at about the center of the State, to form the Alabama River. (See Geological Survey maps for northeast Alabama, southeast Tennessee, and northwest Georgia.)

Previous project. Projects for Alabama River: for details see page 1837, Annual Report for 1915; page 725, Annual Report for 1938; and page 592, Annual Report for 1944. Projects for Coosa River: for details see page 1837, Annual Report for 1915; page 728, Annual Report for 1938; and page 594, Annual Report for 1944.

Existing project. The authorized project provides for full development of the Alabama-Coosa Rivers and tributaries for navigation, flood control, power, recreation, and other purposes, in accordance with plans under preparation by Chief of Engineers, subject to modifications thereof which may be advisable for increasing development of hydroelectric power. (See Table 10-B for authorizing legislation.) Public Law 436, 83rd Congress, suspended authorization of the comprehensive plan, insofar as it provides for development of hydroelectric power for Coosa River, to permit non-Federal interests to develop the Coosa River by construction of a series of dams in accordance with conditions of a license issued pursuant to Federal Power Act and in accordance with certain other provisions and requirements of the aforementioned public law. The plan was further modified by the WRDA of 1986 to authorize planning, engineering and design for the project generally in accordance with the plans contained in Design Memorandum No. 1, General Design, dated May 1982. The present phase of improvement includes the construction of Robert F. Henry and Millers Ferry multiple-purpose improvements, Claiborne Lock and Dam, and supplemental channel work providing for a nine-foot deep navigation channel from the mouth of the Alabama River to Montgomery, Alabama, and construction of Carters Dam, a multiple-purpose improvement on Coosawattee River, Georgia.

Local cooperation. Requirements of local cooperation will be determined as formulation of plans for development of projects progress. No action in the matter of local cooperation has been initiated.

Terminal facilities. On the east bank of the river a natural landing connects with city streets at Montgomery. There are also various natural landings along the river. Facilities and natural landings on Alabama River are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Operation and maintenance for Claiborne Lock and Dam, navigation maintenance for the waterway, snagging and clearing of channels and general charges for water control management, condition surveys, engineering and design, supervision and administration amounted to $2,694,000.

Condition at end of fiscal year. Construction was initiated on Carters Dam in April 1962, on Millers Ferry Lock and Dam in April 1963, Claiborne Lock and Dam in May 1965, and Robert F. Henry Lock and Dam in June 1966. Carters Dam was completed in FY 1980. The authorized nine-foot navigation channel to Montgomery, Alabama was opened to traffic in January 1972. Overall construction is complete in Millers Ferry Lock and Dam. Construction of Robert F. Henry Lock and Dam is complete. Total Federal cost of the existing project as of September 30, 2003 is $131,012,997, including $3,245,400 for new work and $127,767,597 for maintenance. (See Table 10-L.)

1A. CLAIBORNE LOCK AND DAM, AL

Location. The site is in Monroe County at mile 72.5 on the Alabama River, 15 miles northwest of Monroeville and 5.7 miles upstream from the U.S. Highway 84 bridge.

Existing project. The existing project consists of a short earth dike on the right bank, a combination of a fixed-crest and gated spillway extending across the river channel and into the left bank, a navigation lock and mound on the left bank, and an earth dike extending across the left overbank to high ground. Normal upper pool is elevation 35 and the minimum pool will be elevation 32 to provide storage for reregulation of Millers Ferry powerplant releases. The 60-mile long reservoir has an area of 5,850 acres and a volume of 96,360 acre-feet. For other information see description of Alabama-Coosa projects.

Operations and results during fiscal year.

Maintenance: Maintenance cost included under overall Alabama-Coosa Rivers, AL and GA.

Condition at end of fiscal year. Construction began in May 1965 and was completed in FY 1976 at a total cost of $27,997,450. Recreation attendance during FY 2003 totaled 229,101 visits.

1B. COOSA RIVER, MONTGOMERY TO GADSDEN, AL

Location. The Coosa River is one of the two major tributaries forming the Alabama River approximately 18 miles northeast of Montgomery, Alabama. From its source at the juncture of the Etowah and Ooostanaula Rivers in northwest Georgia, it flows southwesterly about 286 miles to join with the Tallapoosa River in forming the Alabama River.

Existing project. The improvement of the Alabama-Coosa River for navigation to Rome, Georgia was authorized by Congress in the River and Harbor Act of 1945. A report in House Document 320, transmitted to Congress on January 27, 1960, recommended that the navigation project for the Coosa River from Montgomery to Gadsden be accomplished after the waterway to Montgomery was assured. The plan of improvement identified in House Document 320 provided for a waterway 9 feet deep with widths of 200 feet to Montgomery, Alabama, and 150 feet to Rome, Georgia. The waterway to Montgomery is complete. The plan for the Coosa River segment of the waterway between Montgomery and Gadsden was further modified by the WRDA of 1986 to authorize planning, engineering and design for the project generally in accordance with the plans contained in Design Memorandum No. 1, General Design, dated May 1982. Total Federal cost of the existing project as of September 30, 2003 is $14,988,935 for new work.

2. APALACHICOLA BAY, FL

Location. The project is on the coast of northwest Florida 160 miles east of Pensacola Harbor. (See Coast and Geodetic Survey Chart 11401.)

Previous project. For details, see page 1833, Annual Report for 1915, and page 689, Annual Report for 1938.

Existing project. The existing project provides for: (a) A channel 10 feet deep and 100 feet wide from the 10-foot depth in Apalachicola Bay, across St. George Island, to within 300 feet of the gulf shore, thence increasing uniformly in width to 200 feet at the shore and continuing with that width to the 10-foot depth in the Gulf of Mexico, with twin jetties extending from the dune line to the outer end of the channel; (b) an inner bar channel, 10 feet deep and 100 feet wide, in Apalachicola Bay; (c) a boat basin 200 feet by 880 feet and 9 feet deep at Apalachicola, Florida, with a connecting channel 9 feet deep and 80 feet wide through Scipio Creek to Apalachicola River; (d) a channel known as Link Channel, 10 feet deep and 150 feet wide, in Apalachicola Bay; (e) a channel generally parallel to the shore at Eastpoint, Florida, 6 feet deep, 100 feet wide, and about 6,000 feet long, and a connecting channel 6 feet deep and 100 feet wide to water at the same depth in St. George Sound, with twin breakwaters on either side parallel to the shore and having a total length of 5,300 feet; (f) a channel 10 feet deep and 100 feet wide through Bulkhead Shoals, connecting Apalachicola Bay with St. George Sound; and (g) a 6-foot by 100-foot channel about one mile long, generally parallel to the shore at Two Mile, Florida, with a 6-foot by 100-foot connecting channel to water of the same depth in Apalachicola Bay. Mean range of tide throughout this harbor is 1.6 feet. Extreme range, except during storms, is about three feet. Plane of reference is mean low water. (See Table 10-B for authorizing legislation.)

Local cooperation. Requirements have been fully complied with.

Terminal facilities. Facilities consist of pile-and-timber wharves which are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Condition surveys, contract dredging, supervision and administration and other miscellaneous costs amounted to $324,365.

Condition at end of fiscal year. The existing project, authorized by the 1954 River and Harbor Act, was completed in 1959, including reimbursement to local interests for approved work, as authorized by the 1958 River and Harbor Act. Improvements at Two Mile except for modifications authorized in 1975 were completed in September 1964. Construction of the breakwater and channel improvements authorized in 1975 at Two Mile was completed in September 1977. Construction of breakwaters at Eastpoint authorized in 1983 was completed in March 1984. Total Federal cost under existing project as of September 30, 2003 is $2,033,461 for new work and $9,791,636 for maintenance, a total of $11,825,097.

3. APALACHICOLA, CHATTAHOOCHEE, AND FLINT RIVERS, AL, GA, AND FL

Location. The Apalachicola River is formed at the southwest corner of the State of Georgia by the junction of the Chattahoochee and Flint Rivers and flows south 108 miles emptying into Apalachicola Bay. The Florida River enters the Apalachicola from the east at mile 45.4 and the River Styx also enters from the east at mile 36.7 and Chipola River enters from the west at mile 28.2. (See Coast and Geodetic Survey Chart 11401.) The Chattahoochee River, 418 miles long, rises in northeast Georgia and flows southwesterly to West Point, and thence southerly to join the Flint River at the southwest corner of Georgia, forming the Apalachicola River. (See Geological Survey maps for northwest Georgia.) The Flint River, 330 miles long, rises in west central Georgia, flows generally southeasterly to Albany, and thence southwest to the southwest corner of the State, where it joins the Chattahoochee River to form the Apalachicola River. (See Geological Survey maps for southwest Georgia.

Previous project. For details see page 484 of Annual Report for 1963.

Existing project. The authorized project provides for development of the Apalachicola, Chattahoochee, and Flint Rivers for navigation, flood control, hydropower, and recreation. Navigation features of the existing project consist of a continuous 9-foot by 100-foot channel in the Apalachicola River from the intersection of the Gulf Intracoastal Waterway to the confluence of the Chattahoochee and Flint Rivers, 104 miles, thence to Columbus, Georgia, on the Chattahoochee River, 164 miles, and to Bainbridge, Georgia, on the Flint River, 29 miles, and a 3-foot by 100-foot channel on the Flint River from Bainbridge to Albany, Georgia, 74 miles, thence a channel suitable for light draft vessels at moderate stage to Montezuma, Georgia, 79 miles to be accomplished by dredging, contract works, and construction of three locks and dams (Jim Woodruff, George W. Andrews, and Walter F. George) along the 9-foot depth channel, two multipurpose dams (West Point and Buford) on the Chattahoochee River. Three multipurpose dams (Lower Auchumpkee Creek, Lazer Creek, and Spewrell Bluff) on the Flint River were deauthorized in the Water Resources Development Act of 1986. The project also provides for minor improvements of certain streams tributary to the Apalachicola River, including a 9-foot by 100-foot side channel, approximately 2,000 feet long, from Apalachicola River to Apalachicola River Industrial Park at Blountstown, Fla. Plane side of reference is mean low water. Hydropower and flood control storage is provided at Sidney Lanier, Walter F. George, and West Point, and hydropower is provided at Jim Woodruff. For further details see Annual Report for 1962. The project was originally authorized in section 2 of the River and Harbor Act of 1945, was further modified by the WRDA of 1986 (P.L. 99-662). (See Table 10-B for authorizing legislation.)

Mean range of tide at the mouth of Apalachicola River is 1.6 feet. At the point where the river is formed the variation between low and high water is about 37 feet. On the Chattahoochee River, variation between average low and high water is about 20 feet, and extreme fluctuation is 65.3 feet at Eufaula. On the Flint River the extreme fluctuation of stage due to flood is 40 feet, while average variation between low and high water is about 21.5 feet. A Comprehensive Basin Study has been completed on the Apalachicola, Chattahoochee, Flint (ACF), and Alabama-Coosa-Tallapoosa (ACT) River Systems.

Local cooperation. The six Florida Counties that originally served as local sponsors for the Florida portion of the waterway have all informed the District in writing that they no longer wish to serve as local sponsors. The State of Florida has also declined assumption of responsibilities of local sponsorship. At this time no items of local cooperation are being complied with. No local sponsors are required for the Alabama and Georgia portions of the waterway.

Terminal facilities. About 200 feet of public docks, in addition to private wharves, are available at Apalachicola, Florida. There are numerous constructed and natural landings along the entire system for launching small craft. For details of other terminal facilities, which are considered adequate for existing commerce, see individual project descriptions. See also Table 10-M on locks and dams and multiple-purpose development included in existing project.

Operations and results during fiscal year.

Maintenance: Operation and maintenance of George W. Andrew Lock and Dam is included in overall project. All other cost for project amounted to $5,779,159.

Condition at end of fiscal year. Improvement of Apalachicola River channel by dredging to provide project dimensions throughout is complete. All major construction on Lake Sidney Lanier Dam, George W. Andrews Lock and Dam, Jim Woodruff Lock and Dam, Walter F. George Lock and Dam and West Point are complete. Channel rectification in Apalachicola River was completed December 1970. More detailed information concerning condition at the end of fiscal year for individual locks and dams and multiple-purpose developments comprising the system is presented under their respective project titles elsewhere in this report. Total Federal cost under existing project as of September 30, 2003 is $4,452,162 for new work and $153,270,221 for maintenance, a total of $157,722,383. (See Tables 10-A and 10-M for fiscal year costs and summaries of overall project.)

3A. GEORGE W. ANDREWS LOCK AND DAM, AL AND GA

Location. The project is on the Chattahoochee River about 46.5 miles above its mouth and about one mile below the town of Columbia, Alabama, near the head of Jim Woodruff Reservoir. (See Geological Survey maps for southeast Alabama). The pool extends up the navigation channel about 28 miles upstream to Walter F. George Lock and Dam.

Existing project. This single-purpose project provides for a concrete fixed-crest spillway 340 feet long extending into the right bank with a crest at elevation 102 feet national geodetic datum, a concrete gate spillway adjacent to the lock 280 feet long with crest at elevation 82 feet national geodetic datum, a single-lift lock with usable chamber dimensions of 82 feet by 450 feet, and a maximum lift of 25 feet. Depths are 13 feet over the lower sill and 19 over the upper sill at normal pool elevation. The underlying foundation is limestone. The project provides for maintenance and care. The House Committee on Public Works, by resolution adopted May 19, 1953, approved the plan as proposed by the Chief of Engineers for a high dam at Walter F. George site and a low dam at the Fort Benning site and a high dam at the upper Columbia site, construction of which was authorized by the 1946 River and Harbor Act as the initiation and partial accomplishment of the plan for full development of the Apalachicola, Chattahoochee, and Flint River system. (See Table 10-B for authorizing legislation.)

Local cooperation. Local interests must operate all movable span bridges, provide suitable public terminals, and hold the

United States free from damages. These conditions are being complied with.

Terminal facilities. At Columbia, Alabama, there is a public wharf with concrete deck for handling general cargo and a bulk petroleum terminal with an unloading dock. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Maintenance cost included under overall Apalachicola, Chattahoochee and Flint project. Recreation attendance for FY 2003 totaled 253,259.

Condition at end of fiscal year. Construction of the lock and dam began in March 1959 and was completed in November 1963 at a total cost of $13,038,427. (See also Table 10-M).

4.AQUATIC PLANT CONTROL (RIVER AND HARBOR ACT OF 1965)

Location. Navigable water, tributary streams, connecting channels and other allied waters in Mobile District.

Existing project. The existing project provides for management and control of water hyacinth, alligatorweed, Eurasian watermilfoil, hydrilla, and other obnoxious aquatic plant growths from navigable water, tributary streams, connecting channels, and other allied waters of the United States, in the combined interest of navigation, flood control, drainage, agriculture, fish and wildlife conservation, public health, and related purposes, including continued research for development of the most effective and economical control measures to be administered by the Chief of Engineers, under the direction of the Secretary of the Army, in cooperation with other Federal and State agencies. Research and planning cost prior to construction shall be borne fully by the United States. (See Table 10-B for authorizing legislation).

Local cooperation. Local interests shall agree to hold and save the United States free from claims that may occur from control operations and to participate to the extent of 50 percent of such operations. Requirements are being met in the state of Alabama by the Department of Conservation and Natural Resources.

Operations and results during fiscal year. Environmental studies amounted to $13,859.

Condition at end of fiscal year. Total Federal cost under the exiting project as of September 30, 2003 is $970,693. Contributed funds for maintenance amount to $21,225.

5. BAYOU CODEN, AL

Location. The project is located in a small tidal stream on the southern coast of Mobile County, Alabama, emptying into Mississippi Sound about 7.6 miles northwest of Cedar Point, the southern tip of western mainland shore of Mobile Bay. (See Coast and Geodetic Survey Chart 11376.)

Previous project. For details see Annual Report for 1945, page 843.

Existing project. The existing project provides for a channel 8 feet deep by 60 feet wide extending from La Belle Avenue bridge south for about 3,000 feet through the bayou to Portersville Bay, thence 8 feet deep by 100 feet wide extending about 2.3 miles westward across Portersville Bay to connect with the Bayou La Batre channel, and a turning basin 8 feet deep by 60 feet wide by 100 feet long on the west side of the bayou channel about 500 feet south of the La Belle Avenue bridge. Mean tidal range is 1.75 feet, and extreme, except during storms, is 3.5 feet. Plane of reference is mean low water. (See Table 10-B for authorizing legislation.)

Local cooperation. Fully complied with.

Terminal facilities. Small privately-owned timber dock piles used in connection with fishing industry in this locality are adequate for existing commerce. A small ship building facility is located near the upper limits of the channel. The marina which will accommodate about 12 small recreational craft, and a slip with facilities for loading oyster shells are located near the mouth of the bayou, and are maintained by the Alabama Department of Conservation.

Operations and results during fiscal year.

Maintenance: Miscellaneous cost amounted to $7,200.

Condition at end of fiscal year. That portion of the project authorized prior to the 1969 modification was completed in 1956. Construction authorized in 1969 was

initiated March 31, 1975 and completed March 26, 1976. Total Federal cost under existing project as of September 30, 2003 is $330,701 for new work and $2,289,938 for maintenance, a total of $2,620,639. Contributed funds expended for new work amount to $100,000 and $131,912 for maintenance.

6. BAYOU LA BATRE, AL

Location. Bayou La Batre is a tidal stream about 10 miles long, emptying into Mississippi Sound on the southern coast of Mobile County, AL., about 10 miles northwest of Cedar Point, the southern tip of the western mainland shore of Mobile Bay. (See Coast and Geodetic Survey Chart 11373.)

Previous project. For details see Annual Report for 1945, page 844.

Existing project. The existing project provides for a 18-foot by 120-foot channel from Pascagoula Ship channel, connecting with the GIWW, along the GIWW alignment, connecting with an extension of the previous 12-foot channel alignment, through Mississippi Sound to the mouth of the bayou, a total distance of approximately 20 miles; then provides for a 12-foot by 100-foot channel to a point about 2,800 feet south of the highway bridge, thence a channel 12 feet deep by 75 feet wide to the bridge, with

the channel widened at a point 0.6 mile below the bridge to provide a turning basin 12 feet deep and about 2.6 acres in area. Authorized by the Water Resources Development Act of 1990, the plan of improvement includes deepening channel to 18-foot by 100-foot from the mouth through the turning basin, a distance of about 1.8 miles; deepen channel from turning basin to 0.29 miles above highway 188 bridge to 14-feet by 75-feet, a distance of about 0.89 miles; extend a 14-foot by 50-foot channel from turning basin into Snake Bayou for about 730 feet and a 12-foot by 50-foot channel within Snake Bayou about 790 feet. Mean tidal range is 1.75 feet, and extreme, except during storms, is 3.75 feet. Plane of reference is mean low water. (See Table 10-B for authorizing legislation.)

Local cooperation. Fully complied with.

Terminal facilities. Wooden wharves have been provided at seafood processing plants and public launching ramps are available. Several boatways for construction of small seagoing vessels are also available. Facilities are adequate for existing commerce.

Operations and results during fiscal year.

New work: None.

Maintenance: Contract dredging cost $0, environmental studies $24,156 and miscellaneous cost $17,844.

Condition at end of fiscal year. The existing project was modified December 30, 1966 under the discretionary authority of the Chief of Engineers to include a turning basin. The project was completed in March 1967. The contract for deepening the Sound Channel was completed in May 1994. The construction of the Bayou Channel was completed in September 1997. Total Federal cost under existing project as of September 30, 2003 is $5,755,195 for new work and $11,695,720 for maintenance, a total of $17,450,915. Contributed funds from local interests for new work amount to $678,618.

7. BILOXI HARBOR, MS

Location. The project is located on Mississippi Sound in southeastern Mississippi, 32 miles by water west of Pascagoula Harbor, Mississippi, and 14 miles east of Gulfport Harbor, Mississippi (See Coast and Geodetic Survey Chart 11373.)

Previous project. For details see page 584, Annual Report for 1962.

Existing project. The existing project provides for a continuous channel 12 feet deep, 150 feet wide and 23 miles long from the Gulf Intracoastal Waterway through Mississippi Sound east of Deer Island, Biloxi Bay, Back Bay, Cranes Neck, and a land cut to Gulfport lake, including a 500-foot by 2,600-foot basin in the lake, thence a 12-foot deep by 100-foot wide channel for about two miles westward from the west end of the lake, terminating in a 300-foot by 500-foot basin; a 12-foot by 100-foot channel from the main channel in Big Lake to and up Bayou Bernard to the Air Force oil terminal at about mile 2.6; a 12-foot by 150-foot spur channel from the main channel in Biloxi Bay for about one mile, terminating in a 400-foot by 600-foot turning basin opposite Ott Bayou; continuation of maintenance of the 12-by 150-foot lateral channel westward about 2.2 miles to Biloxi's south waterfront; a 10-foot by 150-foot channel from Mississippi Sound, passing west of Deer Island to a point where it connects to the 12-foot by 150-foot lateral channel at Biloxi's south waterfront. Construction for the modifications lateral channel authorized by River and Harbor Act of November 7, 1966 was commenced in FY 1974 and completed in February 1975. Further modifications to the project were authorized by the Chief of Engineers on March 28, 1979, which provided for a channel 10 feet deep, 100 feet wide and 300 feet long extending northward from the Biloxi Lateral Channel, and into a rectangular basin, approximately 300 by 370 feet, for use by commercial small craft, and an East Harrison County Canal project which provides for a 12-foot project depth, 130-feet wide and about 2,100 feet long, and a 300 by 300 foot turning basin also to a 12-foot project depth. This work was completed in April 1980.

Cost of modification as authorized by the 1966 River and Harbor Act was $664,390. That portion of the project providing for an entrance channel 6 feet deep, 50 feet wide,

and about 1,800 feet long into Old Fort Bayou, as authorized by the 1945 River and Harbor Act, is inactive. Estimated cost (1954) of this portion was $6,000. (See Table 10-B for authorizing legislation.)

Local cooperation. Fully complied with.

Terminal facilities. A number of wooden piling-and-timber piers for small craft and fishing boats, a bulk gasoline terminal, several boat ways, and concrete products plant are available.

Operations and results during fiscal year.

Maintenance: Supervision and administration and other miscellaneous costs totaled $2,799,065.

Condition at end of fiscal year. The existing project, prior to the modification authorized in 1966, was commenced in 1931 and completed in 1962. The 1966 modification was completed in FY 1975. The 1979 modification was completed in 1980. Total Federal cost under existing project as of September 30, 2003 is $1,431,919 for new work and $18,480,513 for maintenance, a total of $19,912,432. Contributed funds for new work amount to $102,600. Contributed funds for maintenance amount to $238,640.

8. BLACK WARRIOR AND TOMBIGBEE RIVERS, AL

Location. Black Warrior River rises in northern Alabama above Birmingham and flows generally southwesterly to unite with the Tombigbee River at Demopolis, Alabama. Thence the Tombigbee flows south, uniting with the Alabama River to form the Mobile River 45 miles above the head of Mobile Bay. Distance by water from Mobile to vicinity of Birmingham is about 430 miles.

Previous project. For details see page 732, Annual Report for 1938.

Existing project. The existing project provides for a channel 9 feet deep and 200 feet wide from the mouth of the Tombigbee River, 45 miles above Mobile, to the vicinity of Birmingham, via the Tombigbee and Black Warrior Rivers, to mile 430.4 on Sipsey Fork, mile 429.6 on Mulberry Fork and mile 407.8 on Locust Fork, and for maintenance by snagging of Mobile River above the mouth of Chickasaw Creek, a total waterway distance of about 408 miles. The total lift of 255 feet is accomplished by six locks and dams. The original construction program, consisting of 17 dams and 18 lifts, was completed in 1915. Replacement of the original structures with new 110-by 600-foot locks and dams, under the modernization program is as follows: William Bacon Oliver replaced locks 10, 11, and 12; Armistead I. Selden replaced locks 8 and 9; Demopolis replaced locks 4, 5, 6, and 7; Coffeeville (Jackson) replaced locks 1, 2, and 3; and Holt replaced locks 13, 14, 15, and 16. Thus, 16 of the original locks have been replaced by five new locks. Bankhead Lock and Dam (Lock 17) rehabilitation to replace the original double lift lock with a single lift lock was completed in 1980. The Coffeeville Lock and Dam wildlife refuge, authorized in 1960, includes 4,250 acres within the reservoir area and along its boundaries. A replacement lock for the old Oliver Lock located 2,300 feet downstream has been completed. The replacement lock has dimensions of 110 feet by 600 feet. A fixed crest spillway extends 800 feet across the river. Minimum provision was provided to allow construction of a hydropower plant. (See Table 10-B for authorizing legislation.)

Tidal influence extends upstream from Mobile 101.6 miles to Coffeeville Lock and Dam, where tidal effect is apparent only at low stages of the river. At Mobile the mean and extreme tidal ranges are 1.5 and 3.6 feet, respectively. These are at times slightly increased by the effect of winds. The greatest fluctuation of river stages is at Demopolis, Ala., the maximum being 59.7 feet. Maximum fluctuations at other points are 40 feet at old lock 1, which is 100.6 miles from Mobile; 57.8 feet at Tuscaloosa, 346.1 miles from Mobile; 13 feet at Birmingport, 404.9 miles from Mobile; and 27 feet at Cordova, 424.3 miles from Mobile. Ordinary fluctuations at these points are at old lock 1, 20 feet; at Demopolis, 35 feet; at Tuscaloosa, 40 feet; at Birmingport, four feet; and at Cordova, seven feet. Works of improvement reduced the amount of fluctuations at different points by three to 10 feet.

Local cooperation. Requirements of local cooperation have been fully complied with to date.

Terminal facilities. Docks, storage facilities, and handling equipment have been provided as required at most loading and unloading points along the waterway. These include facilities for handling petroleum and petroleum products, coal, ores, sand and gravel, pulpwood, manufacturers, and various other commodities. While most terminal facilities are privately owned, many are available for use by the general public. Facilities are considered adequate for existing commerce. (See Table 10-N for existing locks and dams.)

Operations and results during fiscal year.

Maintenance: Contract dredging of the river system cost $2,800,446. Condition surveys, engineering and design cost supervision, administration and other general charges for the overall river project totaled $24,199,554. Recreation attendance FY 2003 totaled 3,915,090 visits.

Condition at end of fiscal year. Work on the project, commenced in 1887, was essentially completed in 1915. Since then three of the original locks and dams (10, 11 and 12) were replaced by William Bacon Oliver (Tuscaloosa) Lock and Dam which was opened to navigation in August 1939; four original lock and dams (4, 5, 6 and 7) were replaced by Demopolis Lock and Dam which was opened to navigation in August 1954; two original locks and dams (8 and 9) were replaced by Warrior Lock and Dam which was opened to navigation in October 1957; three original locks and dams (1, 2 and 3) were replaced by Coffeeville Lock and Dam which was opened to navigation in August 1960; and four original locks and dams (13, 14, 15 and 16) were replaced by Holt Lock and Dam which was opened to navigation in June 1966. Rehabilitation of the spillway at John Hollis Bankhead Lock and Dam commenced in 1966, and physically completed February 6, 1970. Replacement of the double lift lock with a single lift lock at John Hollis Bankhead Lock and Dam commenced in April 1970 and was completed in 1980. The power plant at John Hollis Bankhead Lock and Dam and Holt Lock and Dam, was built and is operated by the Alabama Power Co. Construction of the new Oliver Lock and Dam is completed with the new lock open to traffic as of July 1991. Project construction began in November 1986 and is scheduled for completion in January 1996. Total Federal cost under existing project as of September 30, 2003 is $88,461,935 for new work and $482,108,683 for maintenance, and $52,292,880 and major rehabilitation, a total of $622,863,498.

8A. OLIVER LOCK AND DAM (REPLACEMENT), AL

Location. The project is located at mile 337.7 on the Black Warrior-Tombigbee River System at Tuscaloosa, Alabama.

Existing project. The existing navigation facilities on the Black Warrior and Tombigbee include six (6) locks having a total lift of 255 feet. Each of the locks have chamber dimensions of 110 by 600 feet. Original work on the waterway was authorized by the River and Harbor Act of 1884. The 17 original locks have been replaced by the existing six (6) locks. Previously, Oliver Lock was the only lock in the system with chamber dimensions of 95 by 460 feet.

Authorized by the Water Resources Development Act of 1986, the plan of improvement was to replace Oliver Lock and Dam at a new location 2,300 feet downstream. The replacement lock with chamber dimensions by 110 by 600 feet was opened to traffic in July 1991. The fixed crest spillway, extends 800 feet across the river. Minimum provisions are being provided to allow

construction of a hydropower plant. Land Acquisition is complete. Construction was initiated in November 1986 with the award of the Alabama Power Company relocation contract. The first stage cofferdam and river diversion contract was awarded in February 1987 and the lock and dam construction contract was awarded in March 1988. For other information see description of Black Warrior and Tombigbee Rivers project.

Local cooperation. A local cooperation agreement is not required. One-half of the total cost of construction of the navigation lock and dam will be paid by amounts appropriated from the Inland Waterways Trust Fund.

Operations and results during fiscal year.

New work: None.

Condition at end of fiscal year. The project is complete. Total Federal (Corps of Engineers) cost under existing project to September 30, 2003 is $61,373,200 for new work. Contributed funds (Inland Waterways Trust) expended total $63,128,156.

9. BON SECOUR RIVER, AL

Location. Rises 2 miles south of Foley, Ala., and flows southerly about 8 miles, emptying into Bon Secour Bay, an arm of Mobile Bay in southwest Alabama.

Existing project. A 10- by 80-foot channel from Gulf Intracoastal Waterway through Bon Secour Bay to mouth of Bon Secour River and extending up river to vicinity of Swifts Landing, thence 6 by 80 feet up river to a point about 600 feet above Oak Landing with two turning and maneuvering areas 150 feet wide and 1,100 to 1,200 feet long opposite Swifts Landing and ice loading dock. Also a 10 by 80 foot South Fork channel from the intersection with the Bon Secour channel, 1.14 miles to a 150 x 150 foot turning basin. Plane of reference is mean low water. Overall length of improvement is about 4.7 miles. Mean tidal range is about 1.5 feet and extreme, except during storms, is 3.5 feet. Existing project was authorized by Chief of Engineers, May 16, 1963, under authority in Section 107, River and Harbor Act of 1960.

Local cooperation. Fully complied with.

Terminal facilities. A number of pile-and-timber marginal wharves used by the seafood industry and a marine ways are located along the existing project. These, together with numerous privately owned piers, are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Contract dredging cost $2,739.

Condition at end of fiscal year. Project was commenced in July and completed in October 1964. Total Federal cost under existing project as of September 30, 2003 is $150,615 for new work and $2,891,686 for maintenance, a total of $3,042,301. Contributed funds for new work amounted to $9,700.

10. CARRABELLE HARBOR, FLORIDA

Location. Carrabelle Bar and Harbor is located 50 miles south, southeast of Tallahassee, Florida, on St. George Sound and the Gulf of Mexico.

Existing Project. The existing project provides for a 27- by 200-foot channel from the Gulf of Mexico for 3 miles to a point west of Dog Island, thence a 25- by 150-foot channel for 5 miles through St. George Sound and Carrabelle River to a turning basin 500 feet square and 25 feet deep at the town of Carrabelle, a 10- by 100-foot channel from turning basin for 0.6 mile to U.S. 98 bridge, thence a 10- by 80-foot channel for 3 miles to the confluence of New and Crooked Rivers. Plane of reference is mean low water. Channels above the turning basin were authorized May 17, 1965 by Chief of Engineers under authority in Section 107 of the River and Harbor Act of July 14, 1960. Other features of existing project were authorized by River and Harbor Act of September 3, 1954. The mean tidal range is 2.2 feet, and extreme is 3.0 feet, exclusive of storms.

Local Cooperation. Items of local cooperation have been furnished by the Board of County Commissioners, Franklin County, Florida.

Terminal Facilities. Existing terminal facilities are adequate for the current needs of the project.

Operations and results during fiscal year.

Maintenance: Miscellaneous cost $30,000.

Condition at end of fiscal year. All new work for this project was completed in 1965. Total Federal cost of the existing project to September 30, 2003 is $481,627 for new work and $1,061,534 for maintenance, a total of $1,543,161.

11. DAUPHIN ISLAND BAY, AL

Location. The project is located between Dauphin and Little Dauphin Island on the west side of the entrance to Mobile Bay, about 30 miles south of Mobile, Alabama and 55 miles west of Pensacola, Florida. (See Coast and Geodetic Survey Chart 11376.)

Existing project. The existing project provides for: (a) A channel 7 feet deep and 150 feet wide from Mobile Bay to an anchorage basin of the same depth, and about 7 acres in area, in the marsh just north of Fort Gaines on Dauphin Island; a channel 6 feet deep and 40 feet wide from the anchorage basin to Dauphin Island Bay; and a jetty and revetment to protect the entrance channel; and (b) an anchorage basin 7 feet deep and 500 feet square at Dauphin Island Village, with an entrance channel of like depth, 100 feet wide and about 8,300 feet long, extending to the 7-foot hydrographic contour in Mississippi Sound. Mean tidal range is 1.1 feet, and extreme, except during storms is about 4 feet. Plane of reference is mean low water. (See Table 10-B for authorizing legislation.)

Local cooperation. Requirements of local cooperation have been fully complied with to date.

Terminal facilities. Several privately-owned wharves for handling seafood, a public dock and mooring slip, and a pier for

recreational craft are located on the village basin. A marina, public launching ramp, and a number of private piers are located on the bay. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Contract dredging cost $435,000.

Condition at end of fiscal year. The project was completed in July 1959. Total Federal cost under existing project as of September 30, 2003 is $292,864 for new work and $4,700,918 for maintenance, a total of $4,993,782.

12. DOG AND FOWL RIVERS, AL

Location. Dog and Fowl Rivers are primarily tidal streams emptying into the west side of Mobile Bay, 8.5 and 17 miles, respectively, south of central Mobile (See Coast and Geodetic Survey Chart 11376.)

Existing project. The Dog River project provides for a 7 by 100-foot channel with a total length of 4.5 miles to provide access to the Mobile ship channel.

The Fowl River project provides for a channel 8 feet deep and 100 feet wide from Mobile Bay into and up Fowl River to deep water about 6,700 feet above its mouth. Total length of the channel is about 2.6 miles. Plane of reference is mean low water. Mean range of tide is about 1.5 feet in Dog River. Extreme range during storms is about 3.6 feet. This segment of the project was completed in November 1973. (See Table 10-B for authorizing legislation.)

Local cooperation. Fully complied with.

Terminal facilities. Existing facilities consist of a boatyard for fabricating steel vessel hulls, nine marinas, four marine ways, a yacht basin on Dog River; two marinas on Fowl River, and numerous timber piers and docks on both rivers. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Contract dredging cost $650,000 and other miscellaneous cost $50,000.

Condition at end of fiscal year. The existing Fowl River portion of the project was commenced in August 1973 and completed in November 1973. Work on the Dog River channel realignment was initiated and completed during FY 1986. Total Federal cost on the existing project as of September 30, 2003 is $8,095,670; $391,354 for new work and $7,704,316 for maintenance. Contributed funds for new work amounted to $195,626.

13. EAST PASS CHANNEL FROM GULF OF MEXICO INTO CHOCTAWHATCHEE BAY, FL

Location. East Pass Channel is located in the entrance from the Gulf into Choctawhatchee Bay at eastern end of Santa Rosa Island, 48 miles east of the entrance into Pensacola Bay and 49 miles west of the new entrance to St. Andrews Bay. (See Coast and Geodetic Survey Chart 11388.)

Previous project. For details see page 672 of Annual Report for 1937.

Existing project. The existing project provides for a 12-foot by 180-foot channel from the Gulf of Mexico into Choctawhatchee Bay, and a 6-foot by 10-foot channel from East Pass Channel into Old Pass Lagoon. The project consists also of two converging jetties spaced 1,000 feet apart at the seaward end. Mean range of tide is 1.3 feet; extreme range, except during storms, is 2.5 feet. Plane of reference is mean low water. (See Table 10-B for authorizing legislation.)

Local cooperation. Responsibilities of local cooperation have been complied with to date.

Terminal facilities. Small privately-owned pile-and-timber piers used in connection with the fishing industry in this locality are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Contract dredging cost $513,637.

Condition at end of fiscal year. Construction of the 1965 modification was commenced October 1967 and completed January 1969. Total Federal cost under existing project as of September 30, 2003 is $916,715 for new work and $15,230,922 for maintenance, a total of $16,147,637. Contributed funds for new work from local interests amount to $398,000.

14. FLY CREEK, AL

Location. Fly Creek (Volanta Bayou) is a small stream about 4.5 miles long rising in Baldwin County, Alabama, 3 miles east of town of Fairhope, from whence it flows northerly, thence westerly and southerly, to form an estuary on eastern shore of Mobile Bay just north of Fairhope and about 13 miles southeast of Mobile, Alabama. (See U.S. Coast and Geodetic Survey Chart No. 11376.)

Existing project. Provides for a channel 6 feet deep, 80 feet wide, and about 1,650 feet long from 6-foot depth in Mobile Bay to a turning basin of same depth, 100 feet wide and 350 feet long, in Fly Creek. Mean tidal range in vicinity of project is about 1.3 feet, and extreme, except during storms, is 3.5 feet.

Existing project was authorized by the River and Harbor Act of May 17, 1950, (H. Doc. 194, 81st Cong., 1st Sess.). The project document contains the latest published map.

Local cooperation. Fully complied with.

Terminal facilities. Fairhope Yacht Club has facilities for small recreational craft on the south bank near mouth of creek, consisting of a pile-and-timber service wharves, several sheet metal boat sheds, boat slips, and other mooring facilities. There is also a commercial marina on north bank of creek.

Operations and results during fiscal year.

Maintenance: Channel condition survey cost $1,000.

Condition at end of fiscal year. Project was commenced in August and completed in October, 1957. Total project costs as of September 30, 2003 amounted to $1,148,835 of which $29,000 was for new work and $1,119,835 for maintenance.

15. GULF INTRACOASTAL WATERWAY BETWEEN APALACHEE BAY, FL AND MEXICAN BORDER (MOBILE DISTRICT)

Location. The project extends westward from Apalachee Bay, Florida, along the Gulf coast to the Rigolets, Louisiana, via a series of coastal lakes, bays, sounds, and land custs. (For further details see Annual Report for 1962.)

Previous project. For details see page 906, Annual Report for 1930.

Existing project. The existing project provides for a waterway 12 feet deep and 125 feet wide at mean low water from Apalachee Bay, Florida, to Mobile Bay, Alabama, and 12 feet deep and 150 feet wide from Mobile Bay, Alabama to Rigolets, Louisiana (Lake Borgne Light No. 29), and for a tributary channel (Gulf County Canal), 12 feet deep, 125 feet wide and about six miles long connecting Intracoastal Waterway at White City, Florida, with St. Joseph Bay. The waterway between the 12-foot depth contours in Apalachee Bay and Lake Borgne Light No. 29 at the Rigolets is 379 miles long. (See Table 10-B for authorizing legislation.

Local cooperation. None.

Terminal facilities. Facilities are available for public use at Carrabelle, Apalachicola, Panama City, and Pensacola, Florida; Mobile and Bayou La Batre, Alabama; and Pascagoula, Biloxi, Gulfport, Pass Christian, and Bay St. Louis, Mississippi. Facilities are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Dredging navigation channel maintenance cost $4,101,824. Condition surveys, water quality studies, supervision and administration totaled $1,700,000.

Condition at end of fiscal year. The existing project is completed except for the portion between Apalachicola Bay and St. Marks, Florida, which has been deauthorized.
Modification of the Gulf County Canal to provide a 12-foot by 125-foot channel was commenced July 1968 and completed June 1969. Total cost of the existing project to September 30, 2003 is $120,998,452, of which $6,480,299 was for new work and $114,518,153 for maintenance.

16. GULFPORT HARBOR, MS

Location. The project is located on Mississippi Sound in southeastern Mississippi, about 35 miles west of Pascagoula, Mississippi, and 60 miles east of New Orleans. (See Coast and Geodetic Survey Chart 11373.)

Previous project. For details see page 747. Annual Report for 1938, and page 995, Annual Report for 1948.

Existing project. The existing project provides for: (a) A channel 32 feet deep, 300 feet wide, and about eight miles long across Ship Island Bar, a channel 30 feet deep, 220 feet wide, and about 11 miles long through Mississippi Sound, and an anchorage basin at Gulfport 30 feet deep, 1,320 feet wide, and 2,640 feet long; and (b) maintenance of the existing commercial smallboat harbor about 26 acres in area, and a straight-approach channel, 100 feet wide and about 4,300 feet long, from deep water in Mississippi Sound to a smallboat basin, all at a depth of 8 feet. Under ordinary conditions mean tidal range is about 1.75 feet, and extreme range, except during storms, is about 3.5 feet. Plane of reference is mean low water. The project is authorized in the Water Resources Development Act (WRDA) 1986, and further amended by WRDA 1988 to modify the existing ship channel to 36 by 300 feet in Mississippi Sound, and 38 by 400 feet across the bar, with changes in the channel alignment and the turning basin for safe and unrestricted navigation. The FY 91 construction appropriation provided for constructing an increment of the authorized project and provide a 36 by 220 feet channel in Mississippi Sound and 38 by 300 feet across the bar. (See Table 10-B for authorizing legislation.)

Local cooperation. Conditions of local cooperation have been fully complied with to date.

Terminal facilities. Existing modern rail-connected terminal facilities at this port are considered adequate for existing commerce. (See Port Series 19, revised in 1979.)

Operations and results during fiscal year.

New work: Miscellaneous cost $377,314.

Maintenance: Contract dredging at a cost of $4,824,469. Supervision and administration and miscellaneous costs amounted to $1,250,000.

Condition at end of fiscal year. The main harbor was commenced 1932 and completed April 1950. Maintenance for small boat harbor and approach channel, constructed by local interests in 1950, was authorized by 1958 River and Harbor Act. Awarded thin-layer monitoring contract in June 1991 under the authority of WRDA 1986 and 1988. The channel contract was awarded in April 1992, and completed in September 1996. Total Federal cost under existing project as of September 30, 2003 is

$25,125,198 for new work and $68,197,339 for maintenance, a total of $93,322,537. Contributed funds for new work amounted to $8,642,180.

17. MOBILE HARBOR, AL

Location. The project is located along the lower 5 miles of Mobile River, and channel extends thru Mobile Bay and into Gulf of Mexico, in southwestern Alabama, 91 miles by water west of Pensacola Harbor, Florida, 90 miles east of Gulfport Harbor, Mississippi, and 144 miles by water northeast of mouth of Mississippi River. (See Coast and Geodetic Survey Chart 11376.)

Previous project. For details see page 503, Annual Report for 1963.

Existing project. The existing project provides for: (a) A 47-foot by 600-foot channel about 1.5 miles long across Mobile Bar; (b) a 45-foot by 400-foot channel in Mobile Bay to mouth of Mobile River; (c) a 40-foot channel in Mobile River to highway bridge, varying from 500 to 775 feet wide; (d) a 25-foot channel from highway bridge to and up Chickasaw Creek to a point 400 feet south of mouth of Shell Bayou, widths being 500 feet in Mobile River and 250 feet in Chickasaw Creek; (e) a turning basin 40 feet deep, 2,500 feet long, and 800 to 1,000 feet wide, opposite Alabama State Docks; (f) a turning basin 40 feet deep, 1,000 feet wide, and 1,600 feet long opposite Magazine Point; (g) a 27-foot by 150-foot channel from Mobile Bay Channel along Arlington pier to a turning basin 800 feet long and 600 feet wide opposite Brookley Complex ocean terminal, and continuing thence a turning basin 250 feet wide and 800 feet long in Garrows Bend, thence a 22-foot by 150-foot channel to the causeway linking McDuffie Island to the mainland; (h) a channel serving the Theodore Industrial Park 40 feet deep and 400 feet wide from the main ship channel in Mobile Bay and extending northwesterly for about 5.3 miles to the shore of Mobile Bay, including an anchorage basin near the shoreline, thence a land cut 40 feet deep, 300 feet wide and 1.9 miles long to and including a 42 acre trapezoid turning basin 40 feet deep, and a barge channel 12-by 100-feet, extending 6,500 feet and terminating in a 300- by 300-foot turning basin; and (i) maintenance of Three Mile Creek by snagging, from its intersection with Industrial Canal to Mobile River. The project provides also for an anchorage area 32 feet deep, 100 feet wide, and 200 feet long opposite site formerly occupied by the U.S. Quarantine Station at McDuffie (Sand) Island. Prior to widening the Mobile Bay Channel as authorized in 1954, the Quarantine Station anchorage area was maintained to a project width of 200 feet. Construction by local interests of a solid-fill causeway across Garrows Bend Channel between McDuffie Island and the mainland is also provided for under existing project. Total length of the bay and river channel is about 41.7 miles. Plane of reference is mean low water. Under ordinary conditions mean tidal range at the lower end of the improvement is 1.2 feet and at the upper end 1.5 feet. Extreme tidal range is 3.4 feet at the lower end and 3.6 feet at the upper end.

Further authorization provides for future development to deepen and widen entrance channel over the bar to 57 feet by 700 feet about 7.4 miles long, deepen and widen bay channel to 55 feet by 550 feet about 27.0 miles long, deepen and widen an additional 3.6 miles of bay channel to 55 feet by 650 feet and provide 55 foot deep anchorage area and turning basin in vicinity of Little Sand Island. All dredged material will be placed in an approved disposal area in the Gulf of Mexico. (See Table 10-B for authorizing legislation.)

Local cooperation. A local cooperation agreement was signed by the local sponsor to construct the project for the first increment of work.

Terminal facilities. Modern rail-connected terminal facilities at this port are considered adequate for existing commerce. (See Port Series No. 18, revised in 1979.)

Operations and results during fiscal year.

New work: Engineering and Design $72,756.

Maintenance: Contract dredging at a cost of $17,602,804. Water quality studies, engineering and design and supervision and administration cost $4,850,000.

Condition at end of fiscal year. Phase I of the project modification was completed in June 1990. Current estimated Federal cost is $218,548,000, and non-Federal cost is $178,452,000. Total Federal cost under existing project as of September 30, 2003 is $97,883,024 for new work and $375,464,512 for maintenance, a total of $473,347,536. Contributed funds expended amounted to $19,068,964 for maintenance. New work contributed funds amounts to $202,040.

18. PANAMA CITY HARBOR, FL

Location. The project is located on the northwest coast of Florida, 102 miles east of entrance to Pensacola Harbor. (See Coast and Geodetic Survey Chart 11389.)

Previous project. For details see page 710, Annual Report for 1938.

Existing project. The existing project provides for a channel about 3.5 miles long, extending from deep water in St. Andrew bay through barrier peninsula, known as Lands End, to the Gulf of Mexico, 300 feet wide and 32 feet deep in the bay through Lands End; and 450 feet wide and 34 feet deep in the gulf, protected by east, west jetties, extending 2,075 feet and 2,896 feet respectively; a channel 100 feet wide and 8 feet deep in Grand Lagoon to a point about 2,400 feet east of State Highway 392 Bridge, with branches to serve terminal facilities; and the maintenance of a channel in Watson Bayou, an arm of St. Andrew Bay, 100 feet wide and 10 feet deep from that depth in bay to highway bridge.

Authorized modifications includes branch channels 38 feet deep and 300 feet wide, leading from the inner end of the main entrance channel westward to the Port Authority terminal at Dyers Point and eastward to the Bay Harbor terminal, about 3.4 and 3.6 miles in length, respectively; turning and maneuvering areas comprising about 55 acres opposite Dyers Point, and 42 acres opposite Bay Harbor, both at a depth of 38 feet; and an anchoring and loading basin for LASH type intermodal carriers, 40 feet deep and containing about 177 acres in St. Andrew Bay near the inner end of the main entrance channel. Mean tidal range is about normally 1.3 feet and 3.0 feet extreme. (See Table 10-B for authorizing legislation.)

Local cooperation. Fully complied with.

Terminal facilities. Available terminal facilities are considered adequate for existing commerce. (See Port Series No. 19.)

Operations and results during fiscal year.

New Work: Engineering, Design and Construction cost $2,039,845.

Maintenance: Miscellaneous costs totaled $990,225.

Condition at end of fiscal year. The existing project (prior to modifications) was completed in November 1949. Repairs to jetties were commenced in June 1961 and completed October 1968. Modifications to the project at Grand Lagoon were completed in January 1972. Total Federal cost under existing project as of September 30, 2003 is $4,366,193 for new work and $14,551,668 for maintenance, a total of $18,917,861. Contributed funds expended for new work amount to $637,819.

19. PASCAGOULA HARBOR, MS

Location. The project is located along lower 6.8 miles of Pascagoula River, the lower six miles of Dog River, and in Bayou Casotte (about four miles east of the mouth of Pascagoula River), and through Mississippi Sound into the Gulf of Mexico, in southeastern Mississippi, about 38 miles west of Mobile, Alabama, and about 100 miles east of New Orleans, Louisiana. (See Coast and Geodetic Survey Chart 11373.)

Previous project. For details see page 741, Annual Report for 1938.

Existing project. The existing project provides for (a) An entrance channel 40 feet deep and 350 feet wide from the Gulf of Mexico through Horn Island Pass, including an impounding area for littoral drift, 40 feet deep, 200 feet wide, and about 1,500 feet long adjacent to the channel at the west end of Petit Bois Island; (b) a channel 38 feet deep and 350 feet wide in Mississippi Sound and Pascagoula River to the railroad bridge at Pascagoula, including a turning basin 2,000 feet long and 950 feet wide (including channel area) on the west side of the river below the railroad bridge; (c) a channel 38 feet deep and 225 feet wide from the ship channel in Mississippi Sound to the mouth of Bayou Casotte, thence 38 feet deep and 300 feet wide for about one mile to a turning basin 38 feet deep, 1,000 feet wide, and 1,750 feet long; (d) a 22-foot deep by 150-foot wide channel up Pascagoula River from the railroad bridge to the mouth of Escatawpa (or Dog) River, then up Escatawpa River to Highway 613 (formerly 63) bridge; (e) a 12-foot by 125-foot channel from the highway bridge; via Robertson and Bounds Lakes, to mile 6 on Escatawpa River; and (f) a 12-foot by 80-foot channel extending from deep water in the Pascagoula River (about one-half mile north of the railroad bridge) to a turning basin in Krebs Lake a distance of about 1,500 feet, then along the south bank of the lake a channel 10-foot by 60-foot and terminating at a second turning basin, a distance of 2,700 feet from the first. Under ordinary conditions mean tidal range is 1.75 feet, and extreme range is 3.75 feet. Plane of reference is mean low water.

Further authorization provides for deepening and widening gulf entrance channel to 44 by 550 feet; widen Horn Island channel to 600 feet, relocating that channel about 500 feet westwardly; deepen Mississippi Sound portion to 42 feet; widen and deepen Bayou Casotte to 42 by 350 feet and construct turning basin. Disposal of all new work material in Gulf of Mexico. (See Table 10-B for authorizing legislation.)

Local cooperation. Fully complied with.

Terminal facilities. Modern rail-connected terminal facilities at this port are considered adequate for existing commerce. (See Port Series No. 19.)

Operations and results during fiscal year.

New Work: Contract dredging cost $886,413.

Maintenance: Contract dredging at a cost of $1,300,000. Water quality studies, supervision and administration, and miscellaneous costs totaled $238,061.

Condition at end of fiscal year. The existing project was completed in August 1965 and the Krebs Lake project was completed in November 1983. The General Design Memorandum (GDM) was approved in June 1992 for deepening and widening channels. Preconstruction Engineering and Design is complete. The channel dredging contract was awarded in September 1994, and completed November 2001. Total Federal cost of existing project to September 30, 2003 is $37,277,589 for new work and $89,828,450 for maintenance, a total of $127,106,039. Contributed funds expended for maintenance amounted to $8,930,035.

20. PENSACOLA HARBOR, FL

Location. The project is located in a landlocked bay on the coast of northwest Florida about 50 miles east of the entrance to

Mobile Bay. (See Coast and Geodetic Survey Charts 490 and 11382.)

Previous project. For details see Annual Report for 1938.

Existing project. The existing project provides for: (a) A 35-foot by 500-foot entrance channel about five miles long, from the Gulf of Mexico to lower Pensacola Bay; (b) a 33-foot by 300-foot bay channel; (c) two 33-foot by 300-foot parallel approach channels to opposite ends of the inner harbor channel; (d) an inner harbor channel 500 feet wide, 33 feet deep, and 3,950 feet long; (e) a 30-foot by 250-foot approach channel to the pierhead line south of Muscogee wharf; and (f) a 15-foot by 100-foot entrance channel into Bayou Chico, thence a channel 14 feet deep, 75 feet wide, and about 4,400 feet long to a turning basin 14 feet deep and 500 feet square. Mean range of tide throughout the harbor is about 1.1 feet near the entrance and about 1.6 feet at the head of bay. Extreme tidal range, except during storms, is about three feet. Plane of reference is mean low water. Modification of the Bayou Chico project to provide for enlarging the entrance channel to 21 by 100 feet, the bayou channel to 20 feet by 100 feet, and deepening the turning basin to 20 feet has been deferred for restudy. (See Table 10-B for authorizing legislation.)

Local cooperation. Fully complied with.

Terminal facilities. Modern rail-connected terminal facilities at this port are considered adequate for existing commerce. (See Port Series No. 19, revised in 1979.)

Operations and results during fiscal year.

Maintenance: Channel survey, environmental permits, support activities and miscellaneous costs totaled $93,232.

Condition at end of fiscal year. New work is completed except for features which are deferred for restudy. The modification authorized in 1962 was commenced in March and completed in May 1965. Total Federal cost of the existing project to September 30, 2003 is $1,469,693 for new work and $9,698,335 for maintenance, a total of $11,168,028. Contributed funds for maintenance amount to $312,350.

21. PERDIDO PASS CHANNEL, AL

Location. The project is located about midway between Pensacola, Florida, and Mobile, Alabama. (See Coast and Geodetic Chart 11378.)

Existing project. The existing project provides for a channel 12 feet deep and 150 feet wide for about 1,300 feet from the Gulf of Mexico into the inlet, thence 9 feet deep and 100 feet wide for about 2,200 feet to the highway bridge, where the channel branches into two arms, each having dimensions of 9 by 100 feet, one of which extends about 3,400 feet into Terry Cove and the other about 3,200 feet into the southern arm of Perdido Bay. The project also provides for two jetties spaced 600 feet apart at the seaward end. The east jetty has a low weir section, 1000 feet long to permit passage of littoral drift into a dredged deposition basin 800 feet by 1,200 feet located between the east jetty and the navigation channel. Mean tidal range is 1.1 feet and extreme is 2.8 feet. (See Table 10-B for authorizing legislation.)

Local cooperation. Requirements of local cooperation have been fully complied with to date.

Terminal facilities. Six marinas, numerous timber piers, docks, and several launching ramps are available. These facilities are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Contract dredging and miscellaneous cost $1,937,814.

Condition at end of fiscal year. The existing project was commenced in May 1968 and completed in May 1969. Total Federal cost of the existing project to September 30, 2003 is $629,860 for new work and $13,738,781 for maintenance, a total of $14,368,641. Contributions from local interest amount to $510,000 for new work and $10,325 for maintenance.

22. TENNESSEE-TOMBIGBEE WATERWAY, AL AND MS

Location. The waterway extends from mile 215 in Pickwick pool on the Tennessee River, southerly through northeastern Mississippi and western Alabama, a total of 234 miles, to the confluence of the Black Warrior and Tombigbee Rivers at Demopolis, Alabama.

Previous project. For details see Annual Report for 1953.

Existing project. The existing project provides for a waterway 234 miles long, connecting the Tennessee and Tombigbee Rivers via the East Fork of Tombigbee River and Mackeys and Yellow Creeks and consists of three sections as follows: (1) the river section, a 9-foot by 300-foot channel for 149 miles between Demopolis and Amory, Mississippi; (2) the canal section, 12 feet by 300 feet for 46 miles from Amory to Bay Springs; and (3) the divide section, a 12-foot by 300-foot channel (except in the 27 mile long divide cut in which the bottom width is 280 feet) for 39 miles from Bay Springs through the dividing ridge to the Tennessee River. The total lift of 341 feet is accomplished by 10 locks (See Table 10-B for authorizing legislation.)

Local cooperation. Local interests have made and are maintaining alterations in highways and highway bridges and in sewer, water-supply, and drainage facilities and provide and maintain suitable and adequate river and canal terminals. Officials of the State of Mississippi were notified of these requirements on December 13, 1949, and officials of the State of

Alabama were notified on December 20, 1949. Legislation enabling boards of supervisors of the various counties concerned to enter into agreements with the United States relative to navigation projects was adopted by the State of Mississippi in 1950. A compact between the States of Alabama, Mississippi, Tennessee, Kentucky and Florida has been formed for the purpose of promoting the project. The name of this organization is the Tennessee-Tombigbee Waterway Development Authority.

During its 1962 session the Mississippi Legislature authorized the formation of the Tombigbee River Valley Water Management District. The District was organized in accordance with the enabling legislation and is empowered to fulfill the requirements of local cooperation for the portion of the project in Mississippi. A satisfactory resolution has been furnished. During its 1967 session the Alabama Legislature authorized the formation of a public corporation to be named the Tombigbee Valley Development Authority for the purpose of further development of the Tombigbee River and tributary streams. The organization was formed in accordance with the enabling legislation and in a referendum held December 5, 1967 the voters of Alabama authorized a bond issue not to exceed $10,000,000 of finance participation in this project and the Tombigbee River and Tributaries project. A satisfactory resolution has been furnished.

Terminal facilities. Docks, storage facilities and handling equipment are still being developed along this new waterway. As of September 30,1998, twelve such facilities were operational, while five were under construction, and five more are planned. The operational facilities are handling grain, wood chips, and logs. When all facilities are complete, about half will be publicly owned and operated. Additional ports and terminals must be completed before the waterway can achieve its full potential. (See Table 10-N for existing locks and dams.)

Operations and results during fiscal year.

Maintenance: Total cost for operation and maintenance of the project for FY 2003 amounted to $26,925,000. Recreation attendance for FY 2003 totaled 2,563,132 visits.

Condition at end of fiscal year. Total Federal cost under the existing project as of September 30, 2003 is $1,053,068,645 for new work, and $399,216,495 for maintenance for a total of $1,452,285,140. Construction formally began December 12, 1972 and overall project is essentially complete. The waterway was opened for navigation in January 1985.

22A. TENNESSEE-TOMBIGBEE WATERWAY WILDLIFE MITIGATION PROJECT, AL AND MS

Location. This project is in Alabama and Mississippi at the following locations:

(1) Existing Project Lands - Approximately 72,500 acres of Tennessee-Tombigbee Project Lands have been designated for mitigation purposes. An additional 20,100 acres have also been designated at Coffeeville Lake, Demopolis Lake, Claiborne Lake and Dannelly Lakes in Alabama and at Okatibbee Lake in Mississippi.

(2) Separable Lands - Acquisition and management of 88,000 separable lands in the Mobile-Tensaw Delta, Alabama (not less than 20,000 acres); the Pascagoula, Pearl, and Mississippi Delta Basins in Mississippi (not less than 25,000 acres); and the balance at any location in the two states.

Previous project. None. This project was a new construction start in Fiscal year 1990. It was authorized by Section 601 of the Water Resources Development Act of 1986.

Existing project. The authorized project called for the acquisition of separable lands at the above named locations. The Alabama Department of Conservation and Natural Resources, Mississippi Department of Wildlife Fisheries and Parks, and the U.S. Fish and Wildlife Service (FWS) assisted in the selection of separable lands. The selected lands were purchased from willing sellers at fair market value. Emphasis was placed on forested wetlands, with a minimum of 34,000 acres of bottomland hardwoods being purchased.

Management of Lands, the separable lands and the existing project lands designated for mitigation purposes are being managed for wildlife. The States are primarily responsible for managing these lands in accordance with management plans jointly developed by the States, Corps and the FWS. However, due to operational constraints it is necessary for the Corps to retain management responsibility for some of the existing project lands included in the mitigation program.

Local cooperation. A local cooperation agreement is not required since the cost of this project is a 100% Federal responsibility.

Operations and results during fiscal year. Miscellaneous cost $1,887,973.

Condition at end of fiscal year. Initial funding for the project was received in January 1990. At the end of September 1998, 21,182 acres had been acquired in the Mobile-Tensaw Delta; 13,433 acres in the Pascagoula Basin; 18,542 acres in the Mississippi Delta; 7,655 acres in the Pearl Basin; 14,378 acres in northeast Mississippi; and 12,292 acres in other areas of Alabama. A variety of activities also continued to intensively manage the 92,600 acres of existing project lands included in the Mitigation Program. The total project cost is estimated to be $94,042,000. Total Federal cost of the project as of September 30, 2003 is $92,172,002 for new work. $1,933,068 for environmental efforts, and $3,707,175 for maintenance, a total of $97,812,245.

23. OTHER AUTHORIZED NAVIGATION PROJECTS

(See Table 10-C.)

24. OTHER AUTHORIZED BEACH EROSION CONTROL PROJECTS

(See Table 10-D.)

25. OTHER AUTHORIZED FLOOD CONTROL PROJECTS

(See Table 10-E.)

26. DEAUTHORIZED PROJECTS

(See Table 10-G.)

27. NAVIGATION WORK UNDER SPECIAL AUTHORIZATION

(See Table 10-H.)

28. NAVIGATION WORK UNDER SPECIAL AUTHORIZATION

Navigation activities pursuant to Section 107, Public Law 86-645, as amended (Preauthorization). Studies conducted under this authority amounted to $-153,928 in FY 2002. (See Table 10-H.)

29. FLOOD CONTROL WORK UNDER SPECIAL AUTHORIZATION

(See Table 10-J.)

30. RECONNAISSANCE AND CONDITION SURVEYS

(See Table 10-K.)

FLOOD CONTROL

31. CEDAR POINT EXTENSION BAY ST. LOUIS, MS

Location. The project is located in the city of Bay St. Louis, Mississippi. It is on St. Louis Bay about 95 miles from Mobile, Alabama, on the east and about 50 miles from New Orleans, Louisiana, on the west.

Existing project. The shoreline erosion project consists of a 4,500 linear-foot concrete/sheetpile wall constructed in front of an existing concrete seawall. Concrete was placed between the new sheetpile walls and the bottom step of the existing concrete seawall.

Operations and results during fiscal year. New work: Miscellaneous cost $24.

Condition at end of fiscal year. Construction was authorized on September 5, 2002, with contract awarded on September 13, 2002. Total Federal cost to date is $605,316 for new work. Contributed funds expended amounted to $56,010 for new work.

32. MATUBBEE CREEK AT COONTAIL ROAD, MS

Location. The project site is located along 500 feet of both banks of Matubbee Creek which runs parallel and adjacent to Coontail Road in rural Monroe County near Aberdeen, Mississippi.

Existing project. The emergency streambank protection project consists of rebuilding and armoring the left descending (southeast) bank of Matubbee Creek with riprap and filter fabric; placement of a riprap-filled toe trench along the left descending bank; grading, grassing, and armoring the adjacent road shoulder; removal and backfill of the failed grout materials along the left descending bank; grading and grassing of both banks and adjacent drainage ditches; and replacing guard rails along the road adjacent to the left descending bank.

Operations and results during fiscal year. New Work: None.

Condition at end of fiscal year. The project was awarded in January 2003. Construction was initiated in May 2003. Total Federal cost to date is $79,090 for new work. Contributed funds expended amounted to $29,313 for new work.

33. WEAVER CREEK at HATLEY ROAD

Location. The project site is located along both banks above and below the Hatley Road Bridge crossing at Weaver Creek in rural Monroe County near Amory, Mississippi.

Existing project. The emergency streambank protection project consists of reconditioning and armoring the endangered slope with riprap and filter fabric; removal and backfill of the failed grout materials at the wingwalls; grading and grassing of banks and adjacent drainage ditches; and replacing adjacent guard rails.

Operations and results during fiscal year. New Work: None.

Condition at end of fiscal year. The project was awarded in January 2003. Construction was initiated in May 2003. Total Federal cost to date is $97,039 for new work. Contributed funds expended amounted to $33,758 for new work.

34. OKATIBBEE LAKE, MS

Location. The project is located on Okatibbee Creek 37.7 miles above its mouth, in Lauderdale County, Mississippi, seven miles northwest of Meridian.

Existing project. The project provides for a dam and reservoir for flood control, water supply, water quality control, fish and wildlife, and recreation. The dam consists of a compacted earth fill 6,540 feet long with the top elevation 369.8 feet above national geodetic datum, with top width of 18 feet. The spillway, which is located 1,500 feet east of the east end of the dam, is an unpaved free overflow type, 1,500 feet long with a fixed crest at elevation 359. A sluice intake structure near the center of the dam serves a 9.0-foot diameter concrete conduit. Storage allocated for water supply and water quality control varies seasonally from 21,400 acre-feet to 34,300 acre-feet between a minimum elevation of 328 and top-of-conservation-pool elevation varying from 339 to 343. Storage varying from 46,500 to 59,500 acre-feet between the top of the conservation pool and elevation 352 has been reserved exclusively for storage of flood waters. (See Table 10-B for authorizing legislation.)

Local cooperation. Complied with to date.

Operations and results during fiscal year.

Maintenance: Costs for the year for ordinary maintenance and recreational management amount to $1,524,287. Recreation attendance at the reservoir during FY 2003 totaled 821,038 visits.

Condition at end of fiscal year. Construction began in June 1965, and was completed in November 1968. Total Federal cost of the existing project as of September 30, 2003 is $1,524,287.

35. TOMBIGBEE RIVER (EAST FORK), MS AND AL

Location. The project is located on the Tombigbee River and its tributaries between the junction of the Browns and Mackeys Creek in Itawamba County, Mississippi, for a distance of 53 miles along the East Fork of the Tombigbee River, from Walkers Bridge at the junction of Browns and Mackeys Creeks to the Monroe County line.

Existing project. Provides for alleviation of floods from the Tombigbee River by clearing and snagging and excavation of 13 cut-off channels, and other related channel improvements. (See Table 10-B for authorizing legislation.)

Local cooperation. Fully complied with on work done under the 1963 Flood Control Act. Work to be done under authority of the 1941 Flood Control Act requires local interest to provide all lands, easements, and rights-of-way for project construction; hold and save the United States free from damages due to construction of the project; and maintain and operate all the works after completion in accordance with regulations prescribed by the Secretary of the Army.

Operations and results during fiscal year.

Maintenance: Routine maintenance of channels cost $130,767.

Condition at end of fiscal year. The project for Itawamba County, as authorized in the 1936 Flood Control Act, was completed during fiscal year 1940. No work has been done on the extension of the project authorized in the 1941 Flood Control Act. Total Federal cost of the existing project as of September 30, 2003 is $134,801 for new work and $4,601,360 for maintenance, a total of $4,736,161.

36. TOMBIGBEE RIVER TRIBUTARIES, MS AND AL

Location. The Tombigbee River rises in extreme northeast Mississippi and flows southerly through eastern Mississippi and western Alabama, emptying into the Mobile River about 45 miles above its mouth at Mobile, Alabama. Tributaries to be improved for flood control are all in northeast Mississippi and northwest Alabama. Luxapalila Creek project consists of 32 miles of completed channel modifications. Approved estimate of cost for new work is $42,108,000; consisting of $37,743,000 Federal funds, and $4,365,000 non-Federal funds. (See Table 10-B for authorizing legislation.)

Local cooperation. Local interests must furnish lands and rights-of-way for construction; make all roads, highway bridge, and utility changes, alterations, additions, and relocations necessary for the project; hold the United States free from damages; prevent future encroachments along the improved channels; maintain all works after completion, with the exception of Twenty Mile Creek from mile 11.7 to mile 22.0.

Operations and results during fiscal year.

New work: Miscellaneous cost $21,359.

Condition at end of fiscal year. Construction commenced in July 1965. Total project is complete. Total Federal cost of existing project as of September 30, 2003 is $40,027,388 for new work. Contributed funds for new work amounted to $570,113.

37. VILLAGE CREEK, BIRMINGHAM, AL

Location. The project is located in central Alabama, Jefferson County, in the city of Birmingham, Alabama.

Existing project. None. The project is basically non-structural and includes evacuating 642 structures, in six (6) separate neighborhoods, from the floodplain; enlarging 2 miles of the stream channel in the vicinity of the Municipal Airport which also involves modification of three (3) bridges, demolishing two (2) unused bridges, and relocating two (2) waterlines and other utilities, installing three (3) emergency floodwarning devices;

and creating an area of 210 acres which can be utilized for future recreation development. Channel enlargements (2 miles) will reduce annual damages near Municipal Airport by 82 percent and evacuation of 642 structures will reduce annual damages in residential areas by 61 percent. The channel segment is not being constructed at the request of the sponsor.

Local cooperation. The Local Cooperation Agreement with the city of Birmingham, Alabama was executed on December 14, 1988. The local sponsor has also agreed to make all required payments concurrently with the project construction.

Operations and results during fiscal year.

New work: Miscellaneous cost $9,842.

Condition at end of fiscal year. Real Estate acquisition started January 1989. The project is complete with acquisition of 634 tracts. Total Federal cost under existing project to September 30, 2003 is $22,887,742 for new work. Contributed funds for new work amounted to $7,196,238.

38. FLOOD CONTROL WORK UNDER SPECIAL AUTHORIZATION

Flood Control activities pursuant to Section 205, Public Law 858, 80th Congress, as amended (Preauthorization).

Snagging and Clearing for flood control pursuant to Section 208 of Flood Control Act of 1954, as amended.

Emergency streambank and shoreline protection pursuant to Section 14 of the Flood Control Act of 1946, as amended.

(See Table 10-J)

Emergency flood control activities - repair, flood fighting, and rescue work under Public Law 99, 84th Congress, and antecedent legislation, and disaster relief and assistance under Public law 288, 93d Congress. (See Table 10-J)

39. INSPECTION OF COMPLETED FLOOD CONTROL PROJECTS

Local flood protection works for which inspection is performed under this heading consist of levee projects at West Point, Georgia, on the Chattahoochee River; Beaver Creek at Montezuma, Georgia, in the Flint River Basin; Elba and Geneva, Alabama in the Choctawhatchee River Basin; Rome, Georgia, and Little Wills Creek at Collinsville, Alabama, in the Alabama-Coosa River Basin. Channel rectification projects include Little Cove Creek, Glencoe, Alabama and Black Creek, Gadsden, Alabama in the Alabama-Coosa River Basin; Big Brown Creek, Donivan Creek, Twenty Mile Creek and Mantachie Creek, near Fulton, Mississippi, Burketts Creek and Stanifer Creek near Amory, Mississippi, Houlka Creek and Sakatonchee Creek in Chickasaw and Clay Counties, Mississippi, James Creek in Monroe County, Mississippi, and Luxapalila Creek, Lowndes County, Mississippi, all in the Tombigbee River Basin; Sowashee Creek, Meridian, Mississippi in the Pascagoula River Basin; Burnt Corn and Murder Creeks, Brewton, Alabama in the Conecuh River Basin; Autauga Creek, Prattville, Alabama; Poley Bridge, Goose Pond and Walnut Creeks, Clanton, Alabama; Pinchgut Creek, and Cahaba River, Trussville, Alabama; Town Creek, Americus, Georgia; and Lake Douglas in Bainbridge, Georgia. Shore protection and erosion control projects include Harrison County, Mississippi; Chattahoochee River at La Grange, Troup County, Georgia; Pumpkinvine Creek, Emerson, Georgia; and Chickasawbogue Creek, US Highway 43 Bridge, Linden, Alabama. The project at Rome and Montezuma, Georgia and Collinsville, Alabama include pumping stations. Inspections are made annually to determine the extent of compliance with approved regulations for maintenance and operation of the project. Responsible local officials are advised of inadequacies in the maintenance and operation of the local flood protection works under their jurisdiction where appropriate. Followup for compliance of the deficient projects continued during the year. Fiscal year costs were $70,917. Total cost to September 30, 2003 is $928,029 charged to maintenance.

40. OTHER AUTHORIZED FLOOD CONTROL PROJECTS

(See Table 10-E.) Multiple-Purpose Projects Including Power

Multiple Purpose Power Projects

41. ALLATOONA DAM, COOSA RIVER BASIN, GA

Location. The project is on Etowah River in Bartow County, Georgia, about 48 miles upstream from Rome, Georgia, about five miles due east of Cartersville, Georgia, and about 2,000 feet downstream from mouth of Allatoona Creek. The reservoir extends about 28 miles up the Etowah River at maximum power-pool elevation of 840 feet above mean sea level.

Existing project. The authorized project provides for a dam and reservoir for flood control, regulation of streamflow for navigation, and development of hydroelectric power. Height above the river bottom of the concrete, gravity-type dam is about 190 feet, from elevation 690 feet to 880 feet national geodetic datum. The spillway, with crest at elevation 835, is controlled by

nine tainter gates, 40 feet wide by twenty-six feet high, and two tainter gates, 20 feet wide by twenty-six feet high; having a combined discharge capacity of 321,000 cubic feet per second with the water surface at elevation 870.3. One 48-inch diameter sluicing conduit with a free discharge valve and four sluices, 5 feet-8 inches wide by 10 feet high, are included in dam. Installed generating capacity consists of two 36,000 kilowatt units and one 2,000 kilowatt unit, or a total of 74,000 kilowatts. The reservoir, covering 19,200 acres at elevation 860, has a storage capacity of 670,000 acre-feet. The initial construction cost was $31,424,738, excluding the addition of recreation facilities at the completed project. (See Table 10-B for authorizing legislation.)

Local cooperation. None required. (Sec. 2, Flood Control Act of June 28, 1938, applies).

Operations and results during fiscal year.

Maintenance: Operation and maintenance of the dam, reservoir, powerhouse, service and recreational activities, and administration totaled $6,358,079. Gross power generation amounted to 204,128 megawatt hours during FY 2003. Recreation attendance at Allatoona Lake during FY 2003 totaled 5,942,789 visits.

Condition at end of fiscal year. Construction of the existing project began in March 1944 and was completed in October 1955. Total Federal cost under existing project as of September 30, 2003 is $35,709,085 for new work and $154,872,106 for maintenance, a total of $190,581,191.

42. BUFORD DAM, LAKE SIDNEY LANIER, GA

Location. Buford Dam is on the Chattahoochee River about 348.9 miles above its mouth, 50 miles above Atlanta and five miles northwest of Buford, Georgia. The reservoir, Lake Sidney Lanier, extends about 47 miles upstream along the Chattahoochee River, and about 21 miles up the Chestatee River, which enters the Chattahoochee River 14.5 miles above the dam.

Existing project. The authorized project provides for a rolled-earth dam 1,630 feet long with crest elevation 1,106 feet national geodetic datum, or about 192 feet above streambed elevation; three earth saddle dikes with a total length of 5,406 feet; a chute spillway with crest at elevation 1,085; a powerhouse in a deep cut with steel penstocks in tunnels, and concrete intake structure at the upstream end of the tunnels; and a flood control sluice tunnel paralleling the power tunnels. The Lake Sidney Lanier reservoir has a gross capacity of 2,554,000 acre-feet of which 637,000 acre-feet of storage is reserved for flood control storage. The power installations consist of one generating unit of 6,000 kilowatts and two units of 40,000 kilowatts each, or a total of 86,000 kilowatts. (See Table 10-B for authorizing legislation.)

Local cooperation. None required.

Operations and results during fiscal year.

Maintenance: Operation and maintenance cost $8,595,916. Gross power generation amounted to 58,890 megawatt hours during FY 2003. Recreational attendance at Lake Sidney Lanier during FY 2003 totaled 7,697,482 visits.

Condition at end of fiscal year. Construction commenced in March 1950 and was completed in June 1960. The reservoir was in useful operation for flood control in February 1956. The first power generating unit was placed on the line June 19, 1957; the second on July 26, 1957; and the third on October 10, 1957. Total Federal
cost under existing project as of September 30, 2003 is $53,030,038 for new work, major rehabilitation cost $17,202,324 and $193,621,301 for maintenance, a total of $263,853,663. (See also Table 10-M.)

43. CARTERS DAM AND RESERVOIR, GA

Location. The damsite is in Murray County, Georgia, on the Coosawattee River 26.8 miles above its junction with Conasauga River, one of the headwater tributaries of the Alabama-Coosa system. It is 60 miles north of Atlanta near the town of Oakman, Georgia. The reservoir is in both Murray and Gilmer Counties.

Existing project. The existing project consists of a 1,950-foot long rockfill dam across the river, three saddle dikes on the left bank, a 258-foot long high-level, gated spillway on the left bank, a powerhouse on the right bank having two conventional units with a generating capacity of 125,000 kilowatts each and two pump-generating units of the same size, and a regulating dam 2,855 feet long with a gated spillway 208 feet long 1.5 miles downstream from the main dam. The lake has an area of 3,220 acres, at maximum pool power elevation 1,072, total capacity of 472,800 acre-feet, of which 134,900 acre-feet is usable for power and 95,700 acre-feet reserved for flood control and 242,200 acre-feet dead storage. For other information see description of Alabama-Coosa project.

Operations and results during fiscal year.

Maintenance: Operation and maintenance of the dam, reservoir, powerhouse, service and recreational activities and administration totaled $7,647,372. Gross power generation

amounted to 378,008 megawatt hours during FY 2003. Recreation attendance during FY 2003 totaled 566,310 visits.

Condition at end of fiscal year. Construction which commenced in April 1962 and completed in September 1980. Total Federal cost of the existing project as of September 30, 2003 is $230,075,628, including $111,140,340 for new work and $118,935,288 for maintenance.

44. JIM WOODRUFF LOCK AND DAM, GA AND FL

Location. The project is located on the Apalachicola River 107.6 miles above its mouth, about 1,000 feet below confluence of the Chattahoochee and Flint Rivers, and 1.5 miles northwest of Chattahoochee, Florida. Reservoir extends about 46.5 miles upstream along the Chattahoochee River to the vicinity of Columbia, Alabama, and about 47 miles upstream along Flint River, or 17 miles above Bainbridge, Georgia. (See Geological Survey maps for southwest Georgia.)

Existing project. The existing project provides for a concrete open-crest spillway 1,634 feet long on the right bank, with a crest at elevation 79 feet national geodetic datum; a single-lift lock with usable chamber dimensions of 82 by 450 constituting a portion of the dam; an earth section 506 feet, a maximum lift of 33 feet, and depth over the sills of 14 feet; a gated spillway 766 feet long with the bridge at elevation 107 feet national geodetic datum, or about 67 feet above the streambed elevation; a powerhouse with an intake section constituting a portion of the dam; an earth section 506 feet long to accommodate the switchyard and substation; and an overflow dike section 2,130 feet long on the left bank, with a crest at elevation 85. The underlying foundation is limestone. At the normal pool elevation of 77, the reservoir has a total capacity of 406,160 acre-feet. The power installation consists of three units of 10,000 kilowatts each, or a total of 30,000 kilowatts. (See Table 10-B for authorizing legislation.)

Local cooperation. Required cooperation is being fulfilled. Easements for rights-of-way and spoil-disposal areas were provided as required along the Apalachicola River. Adequate public terminals were constructed by local interests at Bainbridge, Georgia, on the Flint River, and at Columbia, Alabama, on the Chattahoochee River. Facilities are being planned for other localities on the project.

Terminal facilities. A public wharf with concrete deck for handling general cargo, a bulk storage terminal for petroleum, a grain elevator, and private riverside facilities at Bainbridge, Georgia, on the Flint River, are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Operation and maintenance cost $6,447,711. Gross power generation, amounted to 147,119 megawatt hours during FY 2003. Recreational attendance at Lake Seminole during FY 2003 totaled 1,391,000 visits.

Condition at end of fiscal year. Construction of the lock was commenced in 1947, and completed in 1957. The pool was opened to navigation in May 1954, and the pool was raised to project level in January 1957. The first power-generating unit was placed on-the-line on February 1, the second on March 1, and the third April 26, 1957. Total Federal cost under existing project as of September 30, 2003 is $47,978,858 for new work, major rehabilitation cost $29,738,986 and $143,701,462 for maintenance, a total of $221,419,306. (See also Table 10-M.)

45. MILLERS FERRY LOCK AND DAM, AL

Location. The site is in Wilcox County at mile 142.2 on the Alabama River, 10 miles northwest of Camden, Alabama, and 30 miles southwest of Selma.

Existing project. The existing project consists of an earth dike on the right bank, a concrete, gravity-gated spillway in the river channel, a lock and mound on the left bank, an earth dike extending downstream paralleling the lock, to the powerhouse intake structure; a powerhouse, and an earth dike extending to high ground on the left bank. Normal upper pool is at elevation 80. The powerplant contains two 25,000 kilowatt units and one 30,000 kilowatt unit. The 103-mile long reservoir has an area of 17,200 acres at normal pool level and a total capacity of 331,800 acre-feet. The lock chamber is 84 by 600 feet with a 13-foot depth over the miter sills. For other information see description of Alabama-Coosa project.

Operations and results during fiscal year.

Maintenance: Operation and maintenance of lock, dam, powerhouse, reservoir, and administration cost $6,024,428. Gross power generation amounted to 408,070 megawatt hours during FY 2003. Recreation attendance at William “Bill” Dannelly Reservoir during FY 2003 totaled 1,885,695 visits.

Condition at end of fiscal year. Construction began in April 1963. The lock was placed in temporary operations in June 1968 and opened to full use in November 1969. The powerhouse units were placed on line during April and May 1970. The project was completed in 1980. Total Federal cost of the project as of September 30, 2003 is $63,125,300 for new work and $109,801,504 for maintenance, a total of $172,926,804.

46. ROBERT F. HENRY LOCK AND DAM, AL

Location. The site is in Lowndes and Autauga Counties at mile 281.2 on the Alabama River, 26 miles west of Montgomery.

Existing project. The existing project provides for a navigation lock, a gated spillway, and a power plant located at mile 281.2. The normal upper pool is at elevation 125.0 and the minimum lower pool due to the Millers Ferry Lock and Dam is at elevation 80.0. The structures consist of earth dikes and a power plant on the right bank, a gated spillway in the river channel, a lock and mound on the left bank, and an earth dike extending upstream parallel to the Western Railway of Alabama. The total length of the structures is about 14,962 feet with maximum height above the foundation at the power plant intake about 101 feet. The power plant contains four 20,500-kw. units. The 88-mile long reservoir has an area of 12,300 acres at normal pool level and a total capacity of 234,200 acre-feet. The lock has a chamber 84 feet wide and 600 feet long and provides a 12-foot depth over the lower miter sill. For other information see description of Alabama-Coosa project.

Operations and results during fiscal year.

Maintenance: Operation and maintenance costs amounted to $4,820,517. Gross power generation amounted to 417,933 megawatt hours during FY 2003. Recreation attendance during FY 2003 totaled 1,644,067 visits.

Condition at end of fiscal year. Construction began in March 1966 and is complete. The first powerhouse unit was placed in operation in June 1975, with the last unit on line in November 1975. Total Federal cost of the project as of September 30, 2003 is $167,999,338, including $83,360,800 for new work and $84,638,538 for maintenance.

47. WALTER F. GEORGE LOCK AND DAM, AL AND GA

Location. The project is on the Chattahoochee River about 75.2 miles above its mouth and about 1.5 miles above Fort Gaines, Georgia. (See Geological Survey maps for southwest Georgia.)

Existing project. The existing project provides for a concrete dam, gated spillway, and single-lift lock, with earth embankments at either side. The non-overflow section of the dam includes a powerhouse and an intake structure. The gated spillway is 708 feet long with a fixed crest at elevation 163 feet national geodetic datum. The two earth embankments, of almost equal lengths, have a total length of 12,128 feet, with a crest elevation at 215, and a maximum height of about 68 feet. The nonoverflow section of the concrete dam is 200 feet long, with the deck of the powerhouse section at elevation 208. The lock, with usable chamber dimensions of 82 feet by 450 feet, has a lift of 88 feet with the normal upper pool elevation at 190. Depths are 13 feet over the lower sill and 18 feet over the upper sill at normal pool elevation. The underlying foundation is limestone. Total reservoir capacity is 934,400 acre-feet, with 244,000 acre-feet reserved for power. The power installation consists of four units of 32,500 kilowatts each, or a total of 130,000 kilowatts. The project provides for maintenance, including operation and care. (See Table 10-B for authorizing legislation.)

Local cooperation. Local interests must maintain and operate all utility and highway facilities which may be relocated or otherwise altered as part of the improvement, provide suitable public terminal facilities, and hold the United States free from damages. Local agencies and other organizations have indicated their willingness and ability to comply.

Terminal facilities. Public wharves at Eufaula and Phenix City, Alabama, and Columbus, Georgia, are considered adequate for existing commerce.

Operations and results during fiscal year.

Maintenance: Operation and maintenance cost for FY 2003 was $7,289,061. Gross power generation amounted to 490,556 megawatt hours, of which 481,944 megawatt hours were delivered to Southeastern Power Administration. Recreational attendance during FY 2003 totaled 4,384,766 visits.

Condition at end of fiscal year. Construction was completed in 1963. The lock was opened to navigation in June 1963. The first power generating unit was placed on-the-line in March, the second in May, the third in September, and the fourth in November 1963. Total Federal cost under existing project as of September 30, 2003 is $88,330,669 for new work, major rehabilitation cost $30,976,527 and $178,274,511 for maintenance, a total cost of $297,581,707. (See also Table 10-M.)

48. WEST POINT LAKE, CHATTAHOOCHEE RIVER BASIN, GA AND AL

Location. The damsite is on the Chattahoochee River 2.8 miles upstream from West Point, Georgia, 201.4 miles above the mouth of the Chattahoochee River, and 309.2 miles above the mouth of the Apalachicola River. At the full power pool elevation of 635 feet above national geodetic datum, the reservoir would lie in Troup and Heard Counties, Georgia, and in

Chambers and Randolph Counties, Alabama (See Geological Survey maps of Georgia and Alabama.)

Existing project. The existing project provides for flood control, power, recreation, fish and wildlife development, and streamflow regulation for downstream navigation. The project provides for a gravity-type concrete dam 896 feet long with earth embankments at either end 1,111 feet long on the east end and 5,243 feet long on the west end. The total length of the dam and spillway is 7,250 feet. The main dam consists of a concrete non-overflow section, 185 feet long on the west side and an earth embankment retaining wall on the east side; a gravity concrete spillway 390 feet long, including piers and abutments, with six tainter gates, each 50 feet by 41 feet. A monolith intake-powerhouse section and erection bay 321 feet long is constructed directly west and adjacent to the spillway. At the full power-pool elevation of 635 the reservoir provides a total storage of 605,000 acre-feet of which 307,000 acre-feet is usable. During the critical flood season the reservoir is operated with maximum power pool elevation at 625 feet to provide flood storage between elevations 625 and 635. The initial power installation of 73,375 kilowatts consisting of units 1, 2 and 3 were placed in operation in March and April, 1975. (See Table 10-B for authorizing legislation.)

Local cooperation. None required.

Operations and results during fiscal year.

Maintenance: Operation and maintenance of the project totaled $7,017,300. Gross power generation amounted to 140,458 megawatt hours during FY 2003, of which 134,350 megawatt hours were delivered to Southeastern Power Administration. Recreational attendance during FY 2003 totaled 2,621,920 visits.

Condition at end of fiscal year. Construction of the project, which was initiated in June 1966, and completed at the end of FY 1984. Total Federal cost under existing project as of September 30, 2003 is $131,565,760 for new work and $127,624,573 for maintenance, a total of $259,190,333 (See also Table 10-M.)

49. SCHEDULING FLOOD CONTROL RESERVOIR OPERATIONS

Mobile District monitors flood control operations of Alabama Power Company's Weiss, H. Neely Henry, and Logan Martin Dams on Coosa River, Alabama, and their Lewis Smith Dam on Sipsey Fork (headwaters of Black Warrior River, Alabama), for compliance with regulation plans prepared in accordance with Public Law 436, 83rd Congress, and Federal Power Commission licenses. Fiscal year cost for these activities on the Weiss, H. Neely Henry, and Logan Martin Dams are included under operation and maintenance costs for the Alabama-Coosa Rivers. Fiscal year cost for the Lewis Smith Dam is included under the overall operation and maintenance costs for the Black Warrior-Tombigbee Rivers System.

50. FLOOD CONTROL AND COASTAL EMERGENCIES (FC & CE)

Disaster Preparedness Program	$1,774,121
Emergency Operations	1,987,366
Rehabilitation	-0-
Miscellaneous Reimbursable	2,660,618
Total FC & CE	$6,422,105

51. NATIONAL EMERGENCY PREPAREDNESS PROGRAM (NEPP)

National Preparedness	$27,772
Local Preparedness	-0-
Emergency Facilities	82,160
Training and Exercise	109,615
Other Programs/Activity	29,390
Total NEPP	$248,937

52. REGULATORY FUNCTIONS PROGRAM

Permit Evaluation	$2,698,801
Enforcement	477,914
Studies	-0-
Other Navigational Regulations	7,255
Coastal Mississippi EIS	129,367
Administrative Appeals	15,545
Total Regulatory	$3,328,882

53. PROJECT MODIFICATION TO IMPROVE ENVIRONMENT (Sec. 1135)

Mayo's Bar, Floyd Co., GA	$5,587
Coordination Account Funds	12,112
Gator Lake, Panama City Harbor, FL	20,858
Disposal Area 39, Liberty County, FL	143,126
Coosa River Levees, GA	11,969
Paddlefish Spawning, MS	64
Preliminary Restoration Plan	8,378
Osborne Creek, MS	18,051

Manatchie Creek, MS 13,009
Claiborne Dam Fish Passage, AL 22,791
Lake Seminole-Spring Restoration 3,180
Longwood Cove, GA 343,068
Total Improvement (Sec. 1135, P.L. 99-662) $602,193

54. AQUATIC ECOSYSTEM RESTORATION (SEC. 206)

Big Escambia Creek $386,550
Coordination Account Funds 10,560
Gulf Breeze Wetlands 757
Marvel Slab Removal, AL 24,360
Preliminary Restoration Plans 79,686
Panama City Harbor East Pass 4,461
Butler Creek Detention Pond 207,480
Lake Jackson, FL 76,506
Bell Fountaine Jackson Co., MS 2,697
Deadman's Island, FL 57,581
Allatoona Creek, GA 80,994
Proctor Creek, GA 95,459
Shoal Creek, GA…….. 131,142

Chattahoochee River Dam Removal, GA……..$272,250
Crooked Creek, Gwinnett, GA……..34,579 West Bay Wave Break, FL……69,531 Salt Marsh and Seagrass, FL……49,507 Ginger Creek, GA…….……..19,851 Flat Creek……..14,029
Anneewakee Creek Watershed……..12,333
Settingdown Creek Watershed, Forsyth County…….2,723 Flint River Watershed, Clayton County, GA…….595

Total Restoration (Sec. 206, P.L. 104-303)…$1,633,631

55. OTHER AQUATIC HABITAT (SEC. 204)

Coordination Account Funds $10,926
Deer Island Marsh, MS 499,063

Total Other Aquatic (Sec. 204, P.L. 102-560) $509,989

General Investigations

56. SURVEYS

During FY 2003, costs of $1,587,727 were incurred as shown below:

Flood Damage Preventive Studies $110,174
Navigation Studies 200,661
Special Studies 668,406
Shoreline Protection Studies 299,713
Coordination with Other Agencies, and non-Federal Interests 169,219
Miscellaneous Activities 139,554

Total Surveys $1,587,727

57. COLLECTION AND STUDY OF BASIC DATA

Collection and study of basic data continued during the fiscal year with the initiation of Flood Insurance studies, the cost of which was reimbursable by FEMA. In addition, Flood Plain Management Services were performed at a cost of $170,238 and $18,277 expended for Hydrologic Studies. (See Table 10-P for listings of studies completed during FY 2003.)

58. PRECONSTRUCTION ENGINEERING AND DESIGN

Total FY 2003 expenditures for Preconstruction, Engineering and Design (PED) were $2,535.

59. RIVERS AND HARBORS CONTRIBUTED FUNDS (GENERAL INVESTIGATION)

Contributed funds expended for authorized Federal studies included:

Birmingham Watershed, AL $13,210
Brewton & East Brewton, AL 59,694
Dog River Watershead, AL 12,749
Hancock Co., MS 29,323
Metro Atlanta Watershed, GA 312,682
Planning Assistance to States 120,949

Total Contributed Funds $548,607

TABLE 10-A COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total Cost to Sept. 30, 2003
Navigation							
1.	Alabama-Coosa	New Work:					
	Rivers, AL and GA	Approp.	-	-	-	-	3,245,400
		Cost	-	-	-	-	3,245,400
		Maint.:					
		Approp.	2,532,000	3,856,485	4,582,000	2,611,000	127,787,653[24]
		Cost	2,550,682	3,840,718	4,503,947	2,694,342	127,767,597[24]
1A.	Claiborne Lock and	New Work:					
	Dam, AL	Approp.	-	-	-		27,997,450
		Cost	-	-	-	-	27,997,450
1B.	Coosa River,	New Work:					
	Montgomery to	Approp.	-	-	-	-	14,986,400[23]
	Gadsden, AL	Cost	-	-	-	2,535	14,988,935[23]
2.	Apalachicola Bay,	New Work:					
	FL	Approp.	-	-	-	-	2,033,461[1]
		Cost	-	-	-	-	2,033,461[1]
		Maint.:					
		Approp.	2,255,050	778,450	114,950	323,750	9,791,668[2]
		Cost	2,254,668	780,939	114,532	324,365	9,791,636[2]
3.	Apalachicola,	New Work:					
	Chattahoochee	Approp.	-	-	-	-	4,452,162[26]
	And Flint Rivers,	Cost	-	-	-	-	4,452,162[26]
	AL and GA	Maint.:					
		Approp.	2,986,050	5,342,274	12,906,209	1,871,804	153,337,774[27]
		Cost	2,973,204	5,342,945	8,973,843	5,779,159	153,270,221[27]
3A.	George W. Andrews	New Work:					
	Lock and Dam	Approp.	-	-	-	-	13,038,427[29]
	AL and GA	Cost	-	-	-	-	13,038,427[29]
		Maint.:					
		Approp.	[30]	[30]	[30]	[30]	[30]
		Cost	[30]	[30]	[30]	[30]	[30]
4.	Aquatic Plant	New Work:					
	Control	Approp.	-	-	50,000	-1,100	1,018,087
		Cost	-2,680	11,511	10,563	13,859	970,693
	(Contributed Funds)	Maint.:					
		Contrib.	-	-	-	-	21,225
		Cost	-	-	-	-	21,225
5.	Bayou Coden, AL	New Work:					
		Approp.	-	-	-	-	330,701[3]
		Cost	-	-	-	-	330,701[3]
		Maint.:					
		Approp.	4,000	-	378,000	-	2,291,158
		Cost	7,753	-	6,715	370,624	2,289,938
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	100,000
		Cost	-	-	-	-	100,000
	(Contributed Funds)	Maint.:					
		Contrib.	-	-	-	-	134,357
		Cost	-	4,000	-2,428	-	131,912
6.	Bayou La Batre, AL	New Work:					
		Approp.	-	-100,000	-115,900	-	5,755,195
		Cost	2,895	645	-36,699	-	5,755,195
		Maint.:					
		Approp.	-2,800	13,201	844,000	36,000	11,699,747
		Cost	-	11,141	840,308	37,762	11,695,720
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-18,882	-	678,618[4]
		Cost	-55,619	-	36,738	-	678,618[4]
7.	Biloxi Harbor, MS	New Work:					
		Approp.	-	-	-	-	1,431,919[5]
		Cost	-	-	-	-	1,431,919[5]
		Maint.:					
		Approp.	12,000	212,278	82,000	2,814,000	18,518,673[6]
		Cost	12,077	163,832	107,279	2,799,065	18,480,513[6]
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	102,600
		Cost	-	-	-	-	102,600
	(Contributed Funds)	Maint.:					
		Contrib.	-	-	-	-	238,640
		Cost	-	-	-	-	238,640

TABLE 10-A (continued) COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total Cost to Sept. 30, 2003
8.	Black Warrior &	New Work:					
	Tombigbee Rivers,	Approp.	-	-	-	-	88,461,935[7]
	AL	Cost	-	-	-	-	88,461,935[7]
		Maint.:					
		Approp.	18,853,000	19,631,479	25,972,000	22,953,902	484,369,244[8]
		Cost	18,894,197	19,572,514	22,679,480	24,142,192	482,108,683[8]
		Major Rehab.					
		Approp.	-	-	-	-	52,292,880
		Cost	-	-	-	-	52,292,880
8A.	Oliver Lock & Dam	New Work:					
	(Replacement), AL	Approp.	-	-35,000	-800	-	61,373,200
		Cost	-	-	87	-	61,373,200
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	63,164,125
		Cost	-	-	-	-	63,128,156
9.	Bon Secour River,	New Work:					
	AL	Approp.	-	-	-	-	150,615
		Cost	-	-	-	-	150,615
		Maint.:					
		Approp.	31,000	1,367,000	3,000	-	2,894,758
		Cost	-	25,876	2,739	-	2,891,686
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	9,700
		Cost	-	-	-	-	9,700
10.	Carrabelle Bar	New Work:					
	and Harbor, FL	Approp.	-	-	-	-	481,627
		Cost	-	-	-	-	481,627
		Maint.:					
		Approp.	-	-	-	29,100	1,063,185
		Cost	-	-	60	28,270	1,061,534
11.	Dauphin Island,	New Work:					
	Bay, AL	Approp.	-	-	-	-500	292,364
		Cost	-	-	-	-	292,864
		Maint.:					
		Approp.	1,287,000	184,871	18,000	431,000	4,708,297
		Cost	1,260,526	199,455	18,512	435,064	4,700,918
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	41,422
		Cost	-	-	-	-	41,422
12.	Dog and Fowl	New Work:					
	Rivers, AL	Approp.	-	-	-	-	391,354
		Cost	-	-	-	-	391,354
		Maint.:					
		Approp.	14,800	1,900,358	2,142,000	0	8,047,144
		Cost	12,377	171,229	2,830,712	700,014	7,704,316
	(Contributed Funds)	Maint.:					
		Contrib.	-	-	-	-	197,450
		Cost	-	-	-	-	195,626
12A.	Dog River Pilot, AL	New Work:					
		Approp.	350,000	251,000	-	0	601,000
		Cost	185,178	226,084	39,978	6,553	457,793
13.	East Pass Channel	New Work:					
	From Gulf of Mexico	Approp.	-	-	-	-	916,715
	into Choctwhatchee	Cost	-	-	-	-	916,715
	Bay, FL	Maint.:					
		Approp.	-	25,000	888,850	608,225	15,325,536
		Cost	-	25,000	888,908	513,637	15,230,922
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	398,000
		Cost	-	-	-	-	398,000
14.	Fly Creek, AL	New Work:					
		Approp.	-	-	-	-	29,000
		Cost	-	-	-	-	29,000
		Maint.:					
		Approp.	-12,000	20,000	179,000	-33,000	1,120,121
		Cost	-12,041	19,160	145,424	1,231	1,119,835
15.	Gulf Intracoastal	New Work:					
	Waterway between	Approp.	-	-	-	-	6,480,299[9]
	Apalachee Bay, FL	Cost	-	-	-	-	6,480,299[9]
	and Mexican Border	Maint.:					

TABLE 10-A (continued) COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total Cost to Sept. 30, 2003
		Approp.	6,086,500	4,183,770	4,377,995	5,784,250	114,538,391[10]
		Cost	6,079,289	4,198,427	4,348,216	5,801,824	114,518,153[10]
16.	Gulfport Harbor,	New Work:					
	MS	Approp.	350,000	168.000	84,000	345,000	25,186,000[11]
		Cost	348,513	93,120	130,245	377,314	25,125,198[11]
		Maint.:					
		Approp.	2,836,501	3.433.624	235,000	6,056,000	68,208,127[12]
		Cost	2,827,812	3,287,730	362,192	6,074,469	68,197,339[12]
	(Contributed Funds)	New Work:					
		Contrib.	-	-856,020	-	197,000	8,835,980
		Cost	-350,575	1,579	-	3,200	8,642,180
17.	Mobile Harbor, AL	New Work:					
		Approp.	365,000	73,000	197,000	85,120	97,896,055[13]
		Cost	644,229	271,489	343,313	72,756	97,883,024[13]
		Maint.:					
		Approp.	15,890,000	21,766,262	26,314,000	22,061,000	375,848,302[14]
		Cost	16,024,982	21,789,241	25,628,125	22,452,804	375,464,512[14]
	(Contributed Funds)	Maint.:					
		Contrib.	209,000	-	-	-10,000	19,132,500
		Cost	175,494	4,737	-	-10,000	19,068,964
		New Work:					
		Contrib.	202,040	-	-	-	202,040
		Cost	202,040	-	-	-	202,040
18.	Panama City	New Work:					
	Harbor, FL	Approp.	209,000	216,000	321,000	1,995,000	4,379,045[15]
		Cost	175,494	119,957	392,852	2,039,845	4,366,193[15]
		Maint.:					
		Approp.	8,550	30,992	19,400	993,300	14,554,755[16]
		Cost	8,519	31,014	19,416	990,225	14,551,668[16]
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	1,750,000	1,830,000
		Cost	-	-	-	557,819	637,819
19.	Pascagoula Harbor,	New Work:					
	MS	Approp.	1,835,000	5,884,000	1,622,000	552,935	37,279,920[17]
		Cost	14,071,126	5,461,866	1,912,103	886,413	37,277,589[17]
		Maint.:					
		Approp.	9,409,000	4,616,636	5,889,000	1,477,195	89,841,523[18]
		Cost	9,341,198	4,030,111	6,473,267	1,538,061	89,828,450[18]
	(Contributed Funds)	New Work:					
		Contrib.	4,200,000	1,500,000	1,100,000	417,652	11,094,754
		Cost	4,705,000	1,000,000	1,566,352	110,049	10,753,503
	(Contributed Funds)	Maint.:					
		Contrib.	500,000	500,000	613,412	600,000	8,960,296
		Cost	928,022	489,313	556,340	652,604	8,930,035
19A.	Bayou Casotte,	New Work:					
	MS	Approp.	-	2,820,000	-791,200	-	2,074,800
		Cost	2,133	2,292,076	-256,665	-	2,074,296
	(Contributed Funds)	New Work:					
		Contrib.	683,000	267,000	-	-	950,000
		Cost	683,000	660,960	62,061	3,549	726,570
20.	Pensacola Harbor,	New Work:					
	FL	Approp.	-	-	-	-	1,469,693[19]
		Cost	-	-	-	-	1,469,693[19]
		Maint.:					
		Approp.	135,150	826,899	236,755	35,135	9,703,697[20]
		Cost	134,421	751,583	249,702	93,232	9,698,335[20]
	(Contributed Funds)	Maint.:					
		Contrib.	-	-	-	-	312,350
		Cost	14,763	-	-	-	312,350
21.	Perdido Pass	New Work:					
	Channel, AL	Approp.	-	-	-	-	629,860
		Cost	-	-	-	-	629,860
		Maint.:					
		Approp.	39,499	97,000	988,000	1,642,000	13,845,616
		Cost	39,399	94,387	588,136	1,937,814	13,738,781

TABLE 10-A (continued) COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total Cost to Sept. 30, 2003
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	510,000
		Cost	-	-	-	-	510,000
	(Contributed Funds)	Maint.:					
		Contrib.	-	-	-	-	10,325
		Cost	-	-	-	-	10,325
22.	Tennessee-	New Work:					
	Tombigbee	Approp.	-224,500	-56,000	-1,300	-	1,053,070,400[21]
	Waterway,	Cost	2,100	-824	43	-1,755	1,053,068,645[21]
	AL and MS	Maint.:					
		Approp.	21,302,000	23,736,215	28,280,940	24,511,926	402,494,566[22]
		Cost	21,313,425	23,382,135	24,954,726	25,036,502	399,216,495[22]
22A.	Tenn-Tom Wildlife	New Work:					
	Mitigation	Approp.	300,000	-	-180,000	-12,700	92,207,300
		Cost	788,744	404,711	69,477	7,685	92,172,002
	Tenn-Tom Wildlife						
	Mitigation	Maint.:					
		Approp.	-	-	1,870,000	1,848,400	3,718,400
		Cost	-	-	1,829,202	1,877,973	3,707,175
22B.	Tenn-Tom Wildlife	New Work:					
	Environmental	Approp.	2,030,000	100,000	-	-	2,130,000
		Cost	1,516,048	587,722	5,976	-176,678	1,933,068
	Flood Control						
31.	Cedar Point Extension	New Work:					
	Bay St. Louis, MS	Approp.	-	-	-	-700	684,300
		Cost	240	1,175	-	24	605,316
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-590	56,010
		Cost	-	-590	-	-	-
32.	Choctawhatchee and	New Work:					
	Pea Rivers,	Approp.	-28,000	-6,000	-4,800	-	381,000
	AL and FL	Cost	39,156	-9,430	-	37	381,000
	(Contributed Funds)	New Work:					
		Contrib.	-	-6,299	-	-	150,988
		Cost	42,663	9,430	-	-	150,988
32A.	Choctawhatchee and	New Work:					
	Pea Rivers, Elba and	Approp.	-68,000	-24,000	-11,600	-	629,400
	Geneva Levees, AL	Cost	-21,683	-29,704	-	44	629,400
	(Contributed Funds)	New Work:					
		Contrib.	-5,697	6,532	-	-	338,835
		Cost	99,119	29,756	-	-	338,835
33.	Dane Avenue	New Work:					
	Waveland, MS	Approp.	-	710,000	290,000	-	1,000,000
		Cost	-	595,257	404,743	-	1,000,000
	(Contributed Funds)	New Work:					
		Approp.	-	642,300	-	-117,490	524,810
		Cost	-	33,176	491,634	-	524,810
34.	Graveline Bayou East	New Work:					
	Jackson Co., MS	Approp.	78,000	193,900	-4,954	-9,800	257,146
		Cost	32,122	208,339	3,454	13,146	257,062
	(Contributed Funds)	New Work:					
		Approp.	-	104,300	-	-	104,300
		Cost	-	72,332	-	427	72,759
35.	Gulf Breeze Wetlands	New Work:					
	Gulf Breeze, FL	Approp.	-	96,200	-	-6,800	139,400
		Cost	2,610	91,748	10,963	757	139,380
	(Contributed Funds)	New Work:					
		Approp.	-	6,235	-	-	6,235
		Cost	-	-	3,771	2,270	6,041
36.	Gulf of Mexico,	New Work:					
	Highway 193	Approp.	850,000	-	-	-	1,000,000
	Mobile County, AL	Cost	874,309	878	1,383	-	1,000,000
	(Contributed Funds)	New Work:					
		Contrib.	138,321	-	-	-6,250	632,034
		Cost	578,670	54,748	-1,383	-	632,034
37.	Gulfside Seawall	New Work:					
	Waveland, MS	Approp.	656,800	-95,000	4,954	1,749	668,503
		Cost	178,584	410,923	30,479	6,703	666,754

TABLE 10-A (continued) COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY 03	Total Cost to Sept. 30, 2003
	(Contributed Funds)	New Work:					
		Contrib.	374,665	-	-	-37,182	337,483
		Cost	374,665	-	-30,479	-6,703	337,483
38.	Texas Flat Road	New Work:					
	Hancock County, MS	Approp.	65,100	-	-	-4,200	190,900
		Cost	106,842	6,606	7	33	190,900
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-6,064	81,236
		Cost	87,300	-6,057	-7	-	81,236
39.	Okatibbee Dam,	New Work:					
	MS	Approp.	-	-	-	-	9,739,528
		Cost	-	-	-	-	9,739,528
		Maint.:					
		Approp.	1,599,000	1,472,946	1,551,102	1,605,000	32,696,758
		Cost	1,617,976	1,465,772	1,520,122	1,524,287	32,569,465
40.	Tombigbee River	New Work:					
	(East Fork)	Approp.	-	-	-	-	134,801
	MS and AL	Cost	-	-	-	-	134,801
		Maint.:					
		Approp.	146,000	184,677	158,000	126,500	4,601,378
		Cost	133,774	199,739	156,272	130,767	4,601,360
41.	Tombigbee River	New Work:					
	Tributaries,	Approp.	-	50,000	-	5,970	40,032,795
	MS and AL	Cost	589,434	160,622	16,186	21,359	40,027,388
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	872,700
		Cost	3,333	-	-	12,389	570,113
42.	Upper Gordon Creek	New Work:					
	Hattiesburg, MS	Approp.	50,000	11,000	-	5,000	3,916,000
		Cost	47,654	13,245	2,909	-	3,910,761
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	130,720
		Cost	-	-	-	-	130,689
43.	Village Creek,	New Work:					
	Birmingham, AL	Approp.	-	-	-	-	22,894,000
		Cost	-	6,042	6,954	9,842	22,887,742
	(Contributed Funds)	New Work:					
		Contrib.	-	-	-	-	7,199,710
		Cost	-	-	-	-	7,196,238
Multiple Purpose Power Projects							
47.	Allatoona Dam,	New Work:					
	Coosa River Basin,	Approp.	-	-	-	-	35,709,085[25]
	GA	Cost	-	-	-	-	35,709,085[25]
		Maint.:					
		Approp.	6,428,000	6,324,098	7,503,604	5,955,526	156,111,574
		Cost	6,452,321	6,087,439	6,358,079	6,146,865	154,872,106
48.	Buford Dam,	New Work:					
	Lake Sidney	Approp.	-	-	-	-	53,030,038[28]
	Lanier, GA	Cost	-	-	-	-	53,030,038
		Maint.					
		Approp.	7,488,004	8,168,356	9,235,419	7,802,000	194,001,074
		Cost	7,480,371	8,133,746	8,213,189	8,595,916	193,621,301
		Major Rehab.					
		Approp.	1,397,000	4,848,000	4,346,000	4,816,000	17,206,000
		Cost	1,105,050	4,748,741	4,788,268	5,100,860	17,202,324
49.	Carters Dam and	New Work:					
	Reservoir, GA	Approp.	-	-	-	-	111,140,340
		Cost	-	-	-	-	111,140,340
		Maint.:					
		Approp.	7,563,000	11,208,896	9,535,000	8,267,474	120,705,101
		Cost	7,228,225	11,453,387	8,540,318	7,647,371	118,935,288
50.	Jim Woodruff Lock	New Work:					
	and Dam, GA and	Approp.	-	-	-	-	47,978,858[31]
	FL	Cost	-	-	-	-	47,978,858[31]
		Maint.:					
		Approp.	5,559,535	6,653,610	6,143,630	6,759,000	144,193,486
		Cost	5,641,637	6,772,028	6,008,079	6,447,711	143,701,462

TABLE 10-A (continued) COST AND FINANCIAL STATEMENT

See Section In Text	Project	Funding	FY00	FY01	FY02	FY03	Total Cost to Sept. 30, 2003
		Major Rehab.					
		Approp.	7,346,000	7,279,000	4,457,000	165,220	29,367,220
		Cost	7,639,724	7,522,050	4,665,051	398,175	29,738,986
51.	Millers Ferry Lock	New Work:					
	and Dam, AL	Approp.	-	-	-	-	63,125,300
		Cost	-	-	-	-	63,125,300
		Maint.:					
		Approp.	5,532,000	5,890,250	7,466,438	6,069,000	110,059,546
		Cost	5,170,723	6,221,134	7,339,593	6,024,428	109,801,504
52.	Robert F. Henry	New Work:					
	Lock and Dam, AL	Approp.	-	-	-	-	83,360,800
		Cost	-	-	-	-	83,360,800
		Maint.:					
		Approp.	5,997,000	4,430,330	5,983,002	4,788,000	84,824,445
		Cost	5,515,036	4,893,132	5,834,553	4,820,517	84,638,538
53.	Walter F. George	New Work:					
	Lock and Dam,	Approp.	-	-	-	-	88,330,669[32]
	AL and GA	Cost	-	-	-	-	88,330,669[32]
		Maint.:					
		Approp.	7,486,658	6,522,145	6,824,298	6,860,058	179,041,447
		Cost	7,520,468	6,527,715	6,322,634	6,649,173	178,274,511
		Major Rehab.:					
		Approp.	1,756,000	4,265,000	5,637,650	5,130,000	30,978,650
		Cost	724,438	5,156,982	5,455,138	5,696,492	30,976,527
53A	Walter F. George	Major Rehab.:					
	Secant Wall,	Approp.	743,000	614,000	16,785,000	33,503,078	51,645,078
	AL and GA	Cost	661,563	238,887	16,878,001	33,718,076	51,496,527
54.	West Point Lake,	New Work:					
	Chattahoochee River	Approp.	-	-	-	-	131,565,760[33]
	Basin, GA and AL	Cost	-	-	-	-	131,565,760[33]
		Maint.:					
		Approp.	6,774,292	8,516,298	6,503,823	7,103,504	128,378,792
		Cost	6,753,889	8,523,232	6,204,334	6,678,683	127,624,573

1. Includes $134,613 for previous projects and $28,500 for DPR on Two-Mile.
2. Includes $168,766 for previous projects.
3. Includes $5,650 for previous projects.
4. Cost for providing spoil dikes for work authorized by 1965 River and Harbor Act.
5. Includes $44,382 for previous projects of which $5,000 was contributed funds.
6. Includes $96,509 for previous projects of which $10,200 was contributed funds.
7. Includes $606,931 for previous projects and $1,243,661 for recreational facilities on completed projects.
8. Includes $50,000 for previous projects.
9. Includes $45,605 for previous projects.
10. Includes $65,137 for previous projects.
11. Includes $269,017 for previous projects.
12. Includes $2,312,297 for previous projects and $442,836 Special O and M Funds.
13. Includes $6,683,104 for previous projects, $14,000 Public Work Funds, and $41,242 Emergency Relief funds.
14. Includes $4,096,681 for previous projects and $494,136 Special O and M funds.
15. Includes $203,560 for previous projects, $581,959 Public Works Funds,
$457,467 rehabilitation of jetties under existing project and $48,001 for Grand Lagoon modification.
16. Includes $513,604 for previous projects.
17. Includes $904,442 for previous projects.
18. Includes $412,624 for previous projects, $124,565 Special O and M funds, and $829,472 Emergency Work Funds.
19. Includes $594,688 for previous projects.
20. Includes $126,649 for previous projects.
21. Includes $1,993,000 transferred to National Park Service; $210,249 GI funds expended during FY 1957 thru FY 1961. Previous project cost amounted to $197,651.
22. Includes $234,331 for previous projects.
23. Includes $3,692,483 for previous projects.
24. Includes $2,978,050 for previous projects.
25. Includes $3,347,489 for recreational facilities.
26. Includes $1,883,193 Federal funds, $1,924 contributed funds for previous projects; and $809,553 for Lazer Creek design and $301,310 for Rysco Channel.
27. Includes $2,246,233 for previous projects.
28. Includes $8,233,325 for recreational facilities.
29. Includes $84,014 for recreational facilities.
30. Included under maintenance for overall Apalachicola, Chattahoochee and Flint Rivers projects.
31. Includes $1,515,822 for recreational facilities.
32. Includes $2,441,029 for recreational facilities.
33. Includes $35,045 for previous project costs.

TABLE 10-B AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	APALACHICOLA BAY, FL (See Section 2 of Text)	
Mar. 2, 1907	Channel 18 feet deep through West Pass and Link Channels. Ten feet deep across the inner bar, and 9 feet deep through Bulkhead Shoals.	H. Doc. 422, 59th Cong., 1st Sess.
Jan. 21, 1927	Modify project to provide for channel 10 feet deep from mouth of inner bar channel to Gulf via Link and West Pass Channels, and 10-foot depth in Bulkhead Shoals Channel.	H. Doc. 106, 69th Cong., 1st Sess.
Sep. 3, 1954	At Eastpoint, Fl., a channel 6 feet deep, 100 feet wide, and about 6,000 feet long, parallel to shore, with connecting channel 6 feet deep, and 100 feet wide to St. George Sound, and at Apalachicola, Fl., a small-boat basin 200 feet and 9 feet deep, with a connecting channel 9 feet deep and 80 feet wide through Scipio Creek to the Apalachicola River.	H. Doc. 156, 82d Cong., 1st Sess.
Sep. 3, 1954	Modify project to provide for a channel 10 feet deep and 100 feet wide from the 10-foot depth in Apalachicola Bay across St. George Island to within 300 feet of the Gulf shore, thence increasing uniformly in width to 200 feet at shore and continuing at this width to the 10-foot depth in the Gulf, with two jetties extending from the dune line on St. George Island to the outer end of channel, and for abandonment of West Pass Channel upon completion of channel through St. George Island.	H. Doc. 557, 82d Cong., 2d Sess.
Jul. 3, 1958	Modify improvement of Apalachicola Bay, Fl., authorized by River and Harbor Act of Sept. 3, 1954 to provide that the Secretary of the Army shall reimburse local interests for such approved work as they may have done based upon the reduction in the amount of material which will have to be removed to provide project dimensions at such time as Federal dredging of the channel is undertaken.	
Nov. 21, 1963[1]	A channel 6 feet deep, 100 feet wide, and about 1 mile long, parallel to shore at Two Mile, Fl., with a 6-by 100-foot connecting channel to water of the same depth in Apalachicola Bay.	DPR (Sec. 107)
Feb. 5, 1975[1]	A channel 6 feet deep and 100 feet wide extending from the eastern end of the existing Two Mile channel and generally paralleling the shoreline for a distance of about 9,000 feet to intersect with the Gulf Intracoastal Waterway about 1,650 feet south of Gorrie Bridge at Apalachicola, and a breakwater built to elevation 4.0 feet above mean low water along the seaward side of the existing channel parallel to the shore at Two Mile. The total length of the breakwater of about 6,150 feet, includes two 860-foot legs paralleling the existing entrance channel.	DPR (Sec. 107)
Aug. 11, 1983[1]	Modify Eastpoint project to include breakwaters with a total length of 5,300 feet.	DPR (Sec. 107)
	AQUATIC PLANT CONTROL (See Section 4 of Text)	
Jul. 3, 1958	Aquatic plant control for N.C., S.C., Ga., Fl., Al., Ms., and La.	H. Doc. 37, 85th Cong., 1st Sess.
Oct. 23, 1962	Research and planning costs to be borne by U.S.	Public Law 87-874, 87th Cong.
Oct. 27, 1965	Provided for continued research.	H. Doc. 251, 89th Cong., 1st Sess.
Nov. 17, 1986	Increased non-federal cost-sharing from 30% to 50%.	Water Resources Development Act of 1986 (P.L. 99-662)
	BAYOU CODEN, AL (See Section 5 of Text)	
Mar. 2, 1945	Channel 4 by 40 feet.	H. Doc. 824, 77th Cong., 2d Sess.
Jun. 2, 1969[1]	Channel 8 by 60 feet to connect with Bayou La Batre channel	DPR (Sec. 107)
	BAYOU LA BATRE, AL (See Section 6 of Text)	
Oct. 27, 1965	A 12- by 100-foot channel from that depth in Mississippi Sound to a point about 2,800 feet south of the highway bridge, thence a channel 12 by 75 feet to the bridge, an overall distance of about 33,500 feet.	H. Doc. 327, 88th Cong., 2d Sess.
Nov. 28, 1990	Deepen existing channel to 18 feet to the bridge; to 14 feet above bridge, and into Snake Bayou at a depth of 12 feet.	Water Resources Development Act of 1990 (P.L. 101-640)
	BILOXI HARBOR, MS (See Section 7 of Text)	
Jul. 3, 1930	Channel 10 feet deep and 150 feet wide from Mississippi Sound west and north of Deer Island to deep water in Back Bay of Biloxi.	H. Doc. 754, 69th Cong., 2d Sess.
Jun. 20, 1938	Relocation of channel.	H. Doc. 639, 75th Cong., 3d Sess.
Mar. 2, 1945	Entrance channel 6 feet deep and 50 feet wide into Old Fort Bayou.	H. Doc. 258, 76th Cong., 1st Sess.
Mar. 2, 1945	Entrance channel 8 feet deep and 100 feet wide through Cranes Neck into Bayou Bernard.	H. Doc. 326, 76th Cong., 1st Sess.
May 17, 1950	Maintain channel 6 feet deep and 40 feet wide from Biloxi Harbor to Ott Bayou.	H. Doc. 256, 81st Cong., 1st Sess.
Jul. 14, 1960	Continuous channel 12 feet deep from Mississippi Sound the Air Force terminal on Bayou Bernard via Back Bay and Cranes Neck.	H. Doc. 271, 86th Cong., 2d Sess.
Nov. 7, 1966	A 23-mile-long through channel 12 feet deep and 150 feet wide from the Gulf Intracoastal Waterway through: Mississippi Sound, Biloxi Bay (east of Deer Island), Back Bay, Big Lake, and via land cut to Gulfport Lake, including a 500 by 2,600-foot turning basin in the lake, thence, a channel 12 by 100 feet from the western end of Gulfport lake for about 2 miles to a 300- by 500-foot turning basin; adoption for maintenance of a 12- by 150-foot spur channel from the main channel in Biloxi Bay, westward about 1 mile to a 400- by 600-foot turning basin opposite Ott Bayou, and	H. Doc. 513, 89th Cong., 2d Sess.

TABLE 10-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	abandonment of the existing 6- by 40-foot channel into Ott Bayou; continuation of maintenance of the 12- by 150-foot lateral channel westward about 2.2 miles from the main channel in Biloxi Bay to a point opposite Oak Street; continuation of maintenance of the channel west of Deer Island.	
Mar. 28, 1979[1]	A channel 10 feet deep; 100 feet wide and 300 feet long extending northward from the Biloxi Lateral Channel and, into a rectangular basin approximately 300 feet by 370 feet.	DPR (Sec. 107)
Aug. 15, 1985	A channel 12-feet deep; 130-feet wide and 2,100-feet long, and a 300 by 300 foot turning basin also to a 12-foot depth.	DPR (Sec. 107)
	BLACK WARRIOR AND TOMBIGBEE RIVERS, AL (See Section 8 of Text)	
Jul. 5, 1884	Original appropriation for improving Black Warrior River.	
	Original project for slack-water improvement authorized by Secretary of War, Apr. 19, 1887	Annual Report, 1887, pt. 2, p. 1302.
Mar. 3, 1899	Construction of the first locks between Tuscaloosa and Demopolis.	
Sep. 19, 1890	(Maintenance of the section of Tombigbee River below lock 1 to its mouth (66 miles) included in the existing project.)	
Sep. 19, 1890	Construction of locks and dams, 1, 2, and 3. Merging of the individual project for the Black Warrior and Warrior Rivers and the Tombigbee River below Demopolis	H. Doc. 178, 56th Cong., 2d Sess., and Annual Report, 1901, pt. 3, p. 1858 H. Doc. 165, 57th Cong., 1st Sess., and Annual Report, 1902, p. 1293
Mar. 2, 1907	Construction of locks and dams 14, 15, 16, and 17.	
Mar. 3, 1909	Provides for reconstruction of obsolete structures, modified in plan and location, to provide efficient and economical maintenance and operation.	Public Law 317
Aug. 22, 1911	Lift of lock 17 changed to 63 feet, and construction of locks and dams 18 and 19 eliminated from the project.	H. Doc. 72, 62d Cong., 1st Sess.
	Extension of slack-water improvement on Sanders Ferry on Mulberry Fork and Nichols Shoal on Locust Fork.	
Mar. 2, 1919	Raising of various dams 2 feet and raising the lock walls 2 feet at lock 1 to provide a minimum depth of 8 feet at low water, widening the channel to 150 feet where practicable.	Annual Report, 1918, P. 876
Aug. 30, 1935	For snagging Mobile River from the mouth of Chickasaw Creek to the junction of the Alabama and Tombigbee Rivers.	H. Doc. 728, 71st Cong., 3d Sess,
Aug. 30, 1935	Increase channel dimensions to 9 by 200 feet; construct crest gates at lock and dam 17; add flashboards at all dams; Sunflower Bend Cutoff.	H. Doc. 56, 73d Cong., 1st Sess,, and Rivers and Harbors and Committee Doc. 45 73d Cong.
Aug. 30, 1935	Construction of a lock and dam below Tuscaloosa to replace original locks and dams 10, 11, and 12.	Rivers and Harbors Committee Doc. 26., 74th Cong., 1st Sess.
Jun. 26, 1934	Operation and care of locks and dams provided for with funds from War Department appropriations for rivers harbors.	
Dec. 22, 1944	Recreation facilities.	
Mar. 2, 1945	Construction of a lock and dam near Demopolis to replace existing dams 4, 5, 6, and 7.	H. Doc. 276, 76th Cong., 1st Sess.
Mar. 2, 1945	Provide increased spillway capacity at dam 1.	H. Doc. 382, 76th Cong., 1st Sess.
Jul. 14, 1960	Coffeeville Lock and Dam Wildlife Refuge.	S. Doc. 50, 86th Cong., 1st Sess.
Dec. 21, 1982	Provides for a wider navigation opening at the Franklin Ferry Bridge, Jefferson County, Al.	Public Law 97, 377
Jul. 30, 1983	Authorized to widen, as necessary for safe passage, the navigation opening of Franklin Ferry Bridge, Jefferson County, Al.	Public Law 98-63
Nov. 17, 1986	Conduct a feasibility study of protection from erosion problems on the southern bank from river mile 253 to river mile 255.	Water Resource Development Act of 1986 (P.L. 99-662)
	OLIVER LOCK AND DAM (REPLACEMENT), AL (See Section 8A of Text)	
Aug. 15, 1985	Construction and land acquisition for Oliver Lock Replacement	The Supplemental Appropriations Act, 1985 (P.L. 99-88)
Nov. 17, 1986	Construction of a lock and dam to replace the William Bacon Oliver Lock and Dam.	Water Resources Development Act of 1986 (P.L. 99-662)
	BON SECOUR RIVER, AL (See Section 9 of Text)	
May 16, 1963[1]	A 10- by 100-foot channel from Gulf Intracoastal Waterway through Bon Secour Bay to mouth of Bon Secour River and extending up river to vicinity of Swift's Landing, thence 6 by 80 feet up river to a point 600 feet above Oak Landing, with two turning and maneuvering areas 150 feet wide and 1,100 and 1,200 feet long opposite Swift's Landing and ice loading dock. Overall length of improvement is about 4.7 miles.	DPR (Sec. 107)

TABLE 10-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	CARRABELLE HARBOR, FL (See Section 10 of Text)	
Sep. 3, 1954	Entrance channel 27- by 200-foot, harbor channel 25- by 150-foot, turning basin 25- by 100-foot.	H. Doc. 451, 83d Cong., 2d Sess,
	DAUPHIN ISLAND BAY, AL (See Section 11 of Text)	
Mar. 2, 1945	A channel 7 feet deep and 150 feet wide from Mobile Bay to an anchorage basin of same depth, about 7 acres in area, in marsh just north of Fort Gaines on Dauphin Island; a channel 4 feet deep and 40 feet wide from anchorage basin	H. Doc. 333, 76th Cong., 1st Sess.
Sep. 3, 1954	to Dauphin Island Bay; and a jetty and revetment to protect entrance channel; and (b) an anchorage basin 7 feet deep and 500 feet square at Dauphin Island Village, with an entrance channel of like depth, 100 feet wide and about 8,300 feet long, extending to 7-foot hydrographic contour in Mississippi Sound.	H. Doc. 394, 82d Cong., 2d Sess.
Aug. 16, 1991	Deepen existing 4-foot channel to 7-feet and 40-feet wide from anchorage basin to Dauphin Island Bay.	DPR (Sec. 107)
Jun. 23, 1993	Provides 400 feet of stone protection along the shoreline near the pier and erosion protection for shoreline in the immediate vicinity of Fort Gaines.	DPR (Sec. 14)
	DOG AND FOWL RIVERS, AL (See Section 12 of Text)	
May 19, 1969[1]	To provide small craft navigation on west side of Mobile Bay.	DPR (Sec. 107)
	EAST PASS CHANNEL FROM GULF OF MEXICO INTO CHOCTAWHATCHEE BAY, FL (See Section 13 of Text)	
Jul. 3, 1930	Maintenance of 6-foot channel by 100-foot channel from Choctawhatchee Bay into Gulf.	H. Doc. 209, 70th Cong., 1st Sess.
Oct. 24, 1951	Maintenance of 12-foot channel from Choctawhatchee Bay into Gulf, and maintenance of 6-foot channel into Old Pass Lagoon.	H. Doc. 470, 81st Cong., 2d Sess.
Oct. 27, 1965	Construction of twin jetties. (Present project dimensions.)	H. Doc. 194, 88th Cong., 2d Sess.
Oct. 1, 1980	Modifications to provide a channel length of approximately 3,800 feet in lieu of 2,000 feet from the East Pass Channel into Old Pass Lagoon, with no changes in width and depth.	Energy and Water Development Appropriation
	FLY CREEK, FAIRHOPE, AL (See Section 14 of Text)	
May 17, 1950	A channel 6 feet deep, 80 feet wide, and about 1,650 feet long from 6-foot depth in Mobile Bay to a turning basin of same depth, 100 feet wide and 350 feet long, in Fly Creek.	H. Doc. 194, 81st Cong., 1st Sess,
	GULF INTRACOASTAL WATERWAY BETWEEN APALACHEE BAY, FL, AND MEXICAN BORDER (Mobile District) (See Section 15 of Text)	
	APALACHICOLA RIVER TO ST. ANDREW BAY, FL	
Jun. 25, 1910	A channel 5 feet deep at mean low water and 65 feet wide at the bottom. A channel 9 feet deep at mean low water and 100 feet wide at the bottom.	H. Doc. 670, 61st Cong., 2d Sess. Rivers and Harbors Committee Doc. 52.; 72d Cong., 2d Sess.
	CHOCTAWHATCHEE BAY TO WEST BAY, FL	
Aug. 30, 1935	A channel 9 feet deep at mean low water and 100 feet wide at the bottom.	H. Doc. 259, 72d Cong., 1st Sess.
Jun. 25, 1910	A channel 6 feet deep at mean low water, with no reference to width.	H. Doc. 565, 61st Cong., 2d Sess.
	CHOCTAWHATCHEE BAY TO PENSACOLA BAY, FL	
Aug. 30, 1935	A channel 9 feet deep at mean low water and 100 feet wide at the bottom.	Rivers and Harbors Committee Doc. 42, 73d Cong., 2d Sess.
	PENSACOLA BAY, FL, TO MOBILE BAY, AL	
Jul. 3, 1930	A channel 9 feet deep at mean low water and 100 feet wide at the bottom.	H. Doc. 42, 71st Cong., 1st Sess.
	MOBILE BAY, AL, TO NEW ORLEANS, LA	
Jul. 3, 1930	A channel 300 feet wide and 10 feet from the 10 foot contour in Mobile Bay to the 10-foot contour in Mississippi Sound,	Rivers and Harbors Committee Doc. 4, 71st Cong., 1st Sess.
Jul. 3, 1930	A channel 100 feet wide and 9 feet deep from Lake Pontchartrain to Mississippi Sound.	H. Doc. 341, 71st Cong., 2d Sess.
	APALACHEE BAY, FL, TO NEW ORLEANS, LA	
Jul. 23, 1942	A channel 12 feet deep and 125 feet wide at mean low water, except in the section between Mobile, Al., and New Orleans, La, where the width is to be 150 feet.	Public Law 675, 77th Cong., 2d Sess., and H. Doc. 96, 79th Cong., 1st Sess.
Jun. 17, 1943	Conditional acquisition of Gulf County Canal, Fl. And enlargement of the canal to 9 feet deep and 100 feet wide.	H. Doc. 257, 76th Cong., 1st Sess., and P. L.75, 78th Cong., 1st Sess.
Mar. 2, 1945	Construction of a movable span in the Georgia, Florida & Alabama R.R. bridge crossing the Ochlockonee River.	H. Doc. 442, 76th Cong., 1st Sess,
May 17, 1950	Abandonment and closure of original channel between Big Lagoon and Pensacola Bay and construction of a new channel to enter the bay north of original entrance.	H. Doc. 325, 81st Cong., 1st Sess.

TABLE 10-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
Nov. 7, 1966	Authorized enlargement of Gulf County Canal to 12 by 125 feet.	P. L. 89-789, 89th Cong. 2d Sess.
	GULFPORT HARBOR, MS (See Section 16 of Text)	
Mar. 3, 1899	A channel 19 feet deep and 300 feet wide from the anchorage basin at Ship Island to Gulfport, Ms., and an anchorage basin next to the shore end 19 feet deep and not less than 2,640 feet by 1,320 feet in area.	H. Doc. 120, 55th Cong., 3d Sess.
Mar. 2, 1907	Combined Ship Island Pass with Gulfport Harbor project.	
Feb. 27, 1911	Increased depth to 26 feet and width to 300 feet across Ship Island Bar and depth to 19 feet in channel from anchorage basin at Ship Island to anchorage basin at Gulfport.	H. Doc. 2, 60th Cong., 1st Sess.
Jan. 21, 1927	Authorized relocation of channel across Ship Island Bar.	
Jul. 23, 1930	Increased depth to 27 feet and width to 300 feet across Ship Island Bar, 26 feet deep and 220 feet wide through Ms. Sound and depth of 26 feet in the anchorage basin at Gulfport.	H. Doc. 692, 69th Cong., 2d Sess.
Jun. 30, 1948	Increased depth of 32 feet and width to 30 feet across Ship Island Bar, 30 feet deep and 220 feet wide through Ms. Sound and a depth of 30 feet in the anchorage basin at Gulfport.	H. Doc. 112, 81st Cong., 1st Sess.
Jul. 3, 1958	Maintenance of the existing commercial small-boat harbor and an approach channel 100 feet wide and 4,300 feet long, from deep water in Ms. Sound to the small-boat basin, all at a depth of 8 feet.	S. Doc. 123, 84th Cong., 2d Sess.
Aug. 15, 1985	Modify the existing Ship Channel to 36 x 300 feet in Mississippi Sound, and 38 x 400 feet across the bar, with changes in the channel alignment and the entrance to the anchorage basin for safe and unrestricted navigation.	The Supplemental Appropriations Act, 1985 (P.L. 99-88)
Nov. 17, 1986	Modification of FY 1985 Supplemental Appropriations Act. Dredged material from project shall be disposed of in open water in the Gulf of Mexico in accordance with all provisions of Federal law.	Water Resources Development Act of 1986 (P.L. 99-662)
Nov. 17, 1988	Modify of WRDA of 1986 and authorize disposal of dredged material in open waters of the Gulf of Mexico; and by Thin-layer disposal in Mississippi Sound under a demonstration program.	Water Resources Development Act of 1988 (P.L. 100-676)
	MOBILE HARBOR, AL (See Section 17 of Text)	
Aug. 26, 1937	For improvement of Threemile Creek by snagging from Mobile River to the Industrial Canal.	Rivers and Harbors Committee Doc. 69, 74th Cong., 1st Sess.
Mar. 2, 1945	Adoption of existing channel through Garrows Bend from Choctaw Point in Arlington pier, 27 feet deep and 150 feet wide, with 2 turning basins. Adoption of the existing channel alongside Arlington pier from the of Garrows Bend Channel, 27 feet deep and 150 feet wide. A channel 25 feet deep and generally 500 feet wide in Mobile River from the highway bridge to the mouth of Chickasaw Creek, then 25 feet deep and 250 feet wide in Chickasaw Creek to a point about 400 feet below Shell Bayou.	H. Doc. 739, 79th Cong., 2d Sess,
Sep. 3, 1954	Enlarging Mobile Bay Channel to 42 by 600 feet. Enlarging Mobile Bay Channel to 40 by 400 feet. Deepening Mobile River Channel below highway bridge to 40 feet over present widths, including existing turning basin and anchorage areas. Widening river channel opposite Mazagine Point to provide a 40- by 800- by1,400-foot turning basin. The turning basin was further modified for maintenance by SAD letter of November 27, 1973 under authority contained in ER-1130-2-307 to increase the turning basin's dimensions to 1000' by 1600'.	H. Doc. 74, 83d Congress, 1st Sess.
Sep. 3, 1954	Closure of Garrows Bend Channel by construction and operation of an earth-filled causeway across said channel (work to be done by local interests).	H. Doc. 74, 83d Cong., 2d Sess.
Jul. 26, 1970 (SR) Dec. 15, 1970 (HR)	To provide a channel 40 feet deep and 400 feet wide from the main ship channel in Mobile Bay and extending northwesterly for about 5.3 miles to the shore of Mobile Bay including an anchorage and turning basin near the shoreline, thence a land-cut 40 feet deep, 300 feet wide and about 1.9 miles long to and including a trapezoidal turning basin 40 feet deep and approximately 42 acres, 40 feet deep; a barge channel 12-by 100-feet extending 6500-feet and terminating in a 300-foot by 300-foot terminal basin.	(Under provision of Section 201 of the 1965 Flood Control)
Aug. 15, 1985	Deepen and widen entrance channel over the bar to 57 by 700 feet, a distance of about 7.4 miles, deepen and widen Mobile Bay Channel from mouth of bay to south of Mobile River, 55 by 550 feet, a distance of about 27.0 miles, deepen and widen an additional 4.2 miles of Mobile Bay Channel to 55 by 650 feet, provide 55 foot deep anchorage area and turning basin in vicinity of Little Sand Island, and construct a 1710 acre disposal area adjacent to the Brookley Industrial Complex.	The Supplemental Appropriations Act.
Nov. 17, 1986	Modification of FY 1985 Supplemental Appropriations Act. Dredged material from project shall be disposed of in open water in the Gulf of Mexico in accordance with all provisions of Federal law.	Water Resources Development Act of 1986 (P.L. 99-662)
	PANAMA CITY BEACHES, FL	
Nov. 17, 1986	Shoreline protection to provide a 110-foot wide beach with an artificial dune system and stabilization of vegetation.	Water Resources Development Act of 1986 (P.L. 99-662)
	PANAMA CITY HARBOR, FL (See Section 18 of Text)	
Aug. 30, 1935	Channels 27 and 29 feet deep. Abandonment of project adopted by act of June 25, 1910.	H. Doc. 33, 73d Cong., 1st Sess.
Mar. 2, 1945	Maintenance of a channel in Watson Bayou 100 feet wide and 10 feet deep	H. Doc. 555, 76th Cong., 3d Sess.

TABLE 10-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	from that depth in St. Andrew bay to the highway bridge.	
Jun. 30, 1948	Channels 32 and 34 feet deep.	H. Doc. 559, 80th Cong., 2d Sess.
Mar. 23, 1967[1]	A channel 8 by 100 feet in Grand Lagoon from St. Andrew Bay to a point about 2,400 feet east of State Highway 392. Bridge with branches to serve shore facilities which terminate at the bridge.	DPR (Sec. 107)
Jun. 14, 1972	Channels 38, 40, 42 feet deep.	H. Doc. 196, 92d Cong., 2d Sess.
	PASCAGOULA HARBOR, MS (See Section 19 of Text)	
Mar. 4, 1913	Provides for through channel from the Gulf to mile 4 on Dog River 25 by 300 feet through Horn Island Pass, thence 22 by 225 feet across Mississippi Sound and up 150 feet in Pascagoula River above bridge, and up Dog River to mile 4, all subject to financial participation by local interests.	H. Doc. 682, 62d Cong.,
Mar. 4, 1915	Waived requirement for financial participation by local interests.	River and Harbor Committee Doc. 12, 63d Cong., 2d Sess.
May 17, 1950	Cutoff channel, 12 by 125 feet, from State Highway 63 bridge to mile 4 on Dog River, via Robertson and Bounds Lakes.	H. Doc. 188, 81st Cong., 1st Sess.
Sep. 3, 1954	Modification to provide for channel dimensions of 35 by 325 feet through Horn Island Pass, thence 30 by 275 feet across Mississippi Sound and up Pascagoula River to the railroad bridge, and a turning basin just below the bridge.	H. Doc. 98, 96th Cong.,
Jul. 3, 1958	Reimbursement of local interests for work done on Dog River cutoff ($44,000).	
Jul. 14, 1960	Modification to provide for maintenance of 12- by 125-foot channel to mile 6 on Dog River, and maintenance of 30-by 225-foot side channel from main ship channel in Mississippi Sound to the mouth of Bayou Casotte, thence 30 by 300 feet in Bayou Casotte to a turning basin of the same depth 1 mile above the mouth.	H. Doc. 98, 86th Cong., 1st Sess.
Jul. 14, 1967	Deepening the Horn Island Pass channel to 38 feet and deepening the main ship channel in Mississippi Sound, the river channel to the railroad bridge, and the turning basin all to 33 feet.	Chief of Engineers Report dated Nov. 3, 1960.
Oct. 23, 1962	Enlarging Horn Island Pass Channel to 40 by 350 feet provision of an impounding area adjacent to and east of channel 40 feet deep, 200 feet wide, and about 1,500 feet long, enlarging main channel in Mississippi Sound and river channel to railroad bridge to 38 by 350 feet, and deepening turning basin in river and Bayou Casotte channels and basin to 38 feet.	H. Doc. 560, 87th Cong., 2d Sess.
Jul. 11, 1983[1]	Modification to provide for channel dimensions 12 by 80 feet extending about 2,750 feet from deep waters in the Pascagoula River into Krebs Lake to a turning basin, thence, along the south bank of the lake a channel with dimensions of 10 x 60 feet terminating at a second turning basin, a distance of about 2,750 feet. The project was constructed by hydraulic dredging with the disposal placed in an upland diked area.	DPR (Sec. 107)
Nov. 17, 1986	Deepen and widen gulf entrance channel to 44 by 550 feet; widen Horn Island channel to 600 feet, relocating that channel about 500 feet westwardly; deepen Mississippi Sound portion to 42 feet; widen and deepen Bayou Casotte to 42 by 350 feet and construct turning basin. Disposal of all new work material in Gulf of Mexico.	Water Resources Development Act of 1986 (P.L. 99-662)
	PENSACOLA HARBOR, FL (See Section 20 of Text)	
Jun. 13, 1902	A channel 30 feet deep at mean low water and 500 feet wide from the Gulf of Mexico to the dock line at the east end of the city of Pensacola, and also provided that $150,000 may be used in constructing or purchasing a seagoing suction dredge.	
Aug. 30, 1935	Modified the existing project for the present inner channels and the deepening of the entrance channel to 32 feet.	H. Doc. 253, 72d Cong., 1st Sess.
Aug. 26, 1937	Improvements of Bayou Chico.	Rivers and Harbors Committee Doc. 96, 74th Cong., 2d Sess.
Aug. 27, 1962	Maintenance of the entrance channel from the Gulf of Mexico to lower Pensacola Bay, a distance of about 5 miles to dimensions of 35 feet deep and 500 feet wide; maintenance of a channel along the south side of the aircraft carrier mooring basin, a distance of about 2.5 miles, to dimensions of 33 feet deep and 300 feet wide; a bay channel 33 feet deep, 300 feet wide, and about 2.1 miles long; parallel approach channels to opposite ends of the inner-harbor channel, about 1.3 and 1.4 miles in length, each 33 feet deep, 300 feet wide, and flared at the junctions with the inner-harbor channel; and deepening the existing 500-foot wide inner-harbor channel to a depth of 33 feet and lengthening it to 3,950 feet.	H. Doc. 528, 87th Cong., 2d Sess.
	PERDIDO PASS CHANNEL, AL (See Section 21 of Text)	
Oct. 27, 1965	A 12- by 150-foot channel stabilized by twin rubblemount jetties, from the Gulf of Mexico into Perdido Pass, thence 9 by 100 feet into Perdido Bay with a spur channel of the same dimensions into Terry Cove.	H. Doc. 94, 88th Cong., 2d Sess.
	TENNESSEE-TOMBIGBEE WATERWAY, AL AND MS (See Section 22 of Text)	
Jul. 24, 1946	A waterway connecting Tennessee and Tombigbee Rivers via East Fork of Tombigbee River, Mackeys and Yellow Creeks. Plan of improvement consists of three sections: river section, 9- by 300-foot channel for 149 miles between Demopolis and Amory, Ms.;	H. Doc. 486, 79th Cong., 2d Sess.

TABLE 10-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
	canal section, 12 by 300 feet for 46 miles from Amory to Bay Springs; divide section, 12 by 300 feet (except in the 27 mile-long divide cut in which bottom width be 280 feet) for 39 miles from Bay Springs through dividing ridge to Tennessee. Total lift of 341 feet to be accomplished by 10 locks. Total length of project is 234 miles.	
Nov. 17, 1986	**TENNESSEE-TOMBIGBEE WILDLIFE MITIGATION** (See Section 22A of Text) Acquire from willing sellers in a timely manner at fair market value 88,000 acres of land for mitigation of wildlife losses resulting from construction and operation of the project for the Tennessee-Tombigbee Waterway.	Water Resource Development Act of 1986 (P.L. 99-662)
Sep. 5, 2002	**CEDAR POINT EXTENSION, BAY ST. LOUIS, MS** (See Section 31 of Text) Construction of a 4,500 foot concrete/sheetpile wall in front of existing concrete seawall.	DPR (Sec. 14)
Sep. 11, 1995	**CHOCTAWHATCHEE/PEA RIVERS, AL** (See Section 32 of Text) Install fourteen (14) combination rain and stream gages within Choctawhatchee and Pea River Basins.	DPR (Sec. 205)
Jan. 15, 1998	**CHOCTAWHATCHEE AND PEA RIVERS ELBA AND GENEVA LEVEES, AL** (See Section 32A of Text) Replacing or repairing culverts flap gates, installing sluice gates on inside of levee and clearing underbrush.	DPR (Sec. 205)
May 30, 2001	**DANE AVENUE, WAVELAND, MS** (See Section 33 of Text) Provide a 4,500 linear-foot sheetsteel bulkhead with a concrete cap for Shoreline protection.	DPR (Sec. 14)
Nov. 1, 2000	**GRAVELINE BAYOU EAST, JACKSON CO., MS** (See Section 34 of Text) Provide a 600-foot-long vinyl sheetpile bulkhead with a timber cap for storm damage reduction.	DPR (Sec. 103)
	GULF BREEZE WETLANDS, GULF BREEZE, FL (See Section 35 of Text) Provides for a 200-foot long riprap breakwater to control tidal impacts, and approximately 0.3-acres of productive seagrass beds; 4,000 square feet of emergent salt marsh plants.	DPR (Sec. 206)
Sep. 15, 1999	**GULF OF MEXICO, HWY 193, MOBILE CO., AL** (See Section 36 of Text) Provide a 5,875 vinyl sheetpile/riprap seawall along Highway 193 to prevent erosion and destruction of highway due to wave action from Gulf of Mexico.	DPR (Sec. 14)
Jun. 13, 2000	**GULF SEAWALL, WAVELAND, MS** (See Section 37 of Text) Provide a 3,000 foot long sheetsteel concrete bulkhead to protect South Beach Boulevard from erosion, due to wind driven wave action from Mississippi Sound.	DPR (Sec. 14)
Sep. 24, 1999	**TEXAS FLAT ROAD, KILN, MS** (See Section 38 of Text) Construct a 150-foot revetment, consisting of vinyl sheetpile and riprap, along southeastern slope of the Jourdan River to protect roadway and atrium.	DPR (Sec. 14)
Oct. 23, 1962	**OKATIBBEE LAKE, MS** (See Section 39 of Text) Provides for a dam and reservoir for flood control, water supply, water quality control, and recreation.	H. Doc. 549, 87th Cong., 2d Sess.
Aug. 18, 1941	**TOMBIGBEE RIVER (EAST FORK), MS AND AL** (See Section 40 of Text) Provides for alleviation of floods from the Tombigbee River by clearing, snagging, and excavation of 13 cut-off channels, and other related channel improvements.	Special Report on Record in Oct. (P.L. 222) 77th Cong., 1st Sess.
Jul. 23, 1958 Jul. 8, 1980	**TOMBIGBEE RIVER TRIBUTARIES, MS AND AL** (See Section 41 of Text) Provides for improvement of 22 tributaries of Tombigbee River. Extends project limits on Twenty Mile Creek and eliminates local cooperation for this remedial work.	H. Doc. 167, 84th Cong., 1st Sess. Supplemental Appropriations and Recession Act
Oct. 13, 1988[2]	**UPPER GORDON CREEK, HATTIESBURG, MS** (See Section 42 of Text) Real Estate acquisition of nine (9) residences; habitat mitigation and channel enlargement.	DPR (Sec. 205) 1980 (P.L. 96-304)
	VILLAGE CREEK, JEFFERSON COUNTY, BIRMINGHAM, AL (See Section 43 of Text)	

TABLE 10-B (Continued) AUTHORIZING LEGISLATION

Acts	Work Authorized	Documents
Nov. 17, 1986	Basically nonstructural and includes evacuating 642 structures in six separate neighborhoods from floodplain; enlarge 2 miles of channel and relocate necessary facilities; Install flood warning devices.	Water Resources Development Act of 1986 (P.L. 99-662)
Nov. 28, 1990	Authorized the Secretary to acquire private vacant lands within the definite project boundaries established in the Real Estate Design Memorandum as a nonstructural element of the project.	Water Resources Development Act of 1990 (P.L. 101-640)
	MULTIPLE PURPOSE PROJECTS INCLUDING POWER	
	ALABAMA-COOSA RIVERS, AL AND GA (See Section 1 of Text)	
Mar. 2, 1945	Provides for full development of Alabama-Coosa Rivers and tributaries for navigation, flood control, power, recreation, and other purposes. Authorized construction of Carters Lake, GA, Claiborne Lock and Dam, AL, Jones Bluff Lock and Dam, AL, and Millers Ferry Lock and Dam, AL.	H. Doc. 414, 77th Cong., 1st Sess.
Jun. 28, 1954	Suspended comprehensive plan to permit non-Federal interests to develop Coosa River by constructing series of dams.	Public Law 436, 83rd Cong.
May 25, 1982	Designated change of name from Jones Bluff to Robert F. Henry Lock and Dam.	S.2034 97th Cong., 2d Sess.
Nov. 17, 1986	Modification to the plan for the Coosa River segment of the waterway between Montgomery and Gadsden, AL to carry out planning, engineering and design in accordance with the Montgomery to Gadsden, Coosa River Channel, AL Design Memorandum No. 1, General Design, dated May 1982.	Water Resources Development Act of 1986 (P.L. 99-662)
	ALLATOONA LAKE, COOSA RIVER BASIN, GA (See Section 47 of Text)	
Aug. 18, 1941	Provides for dam and reservoir for flood control, regulation of stream flow for navigation, development of hydroelectric power and recreation.	Public Law 228, 77th Cong., 1st Sess.
Dec. 22, 1944		H. Doc. 674, 76 Cong., 3d Sess.
	APALACHICOLA, CHATTAHOOCHEE AND FLINT RIVERS, AL, GA AND FL (See Section 3 of Text)	
Mar. 2, 1945	Development of Apalachicola, Chattahoochee, and Flint Rivers for navigation, flood control, hydropower, and recreation.	H. Doc. 342, 76th Cong., 1st Sess.
Jul. 24, 1946	Modified general plan for full development of Apalachicola, Chattahoochee, and Flint River System and authorized construction of Lake Sidney Lanier multipurpose reservoir.	H. Doc. 300, 80th Cong., 1st Sess.
Dec. 22, 1944	Authorized recreation facilities.	
Jan. 27, 1981[1]	Modified the existing project to provide for 9- foot deep by 100-foot wide side channel into the Apalachicola River Industrial Park, Blountstown, Fl.	DPR (Sec. 107)
	APALACHICOLA, CHATTAHOOCHEE, AND FLINT	
Nov. 17, 1986	Modified Rivers and Harbors Act of 1945 to restore and maintain access to bendways and interconnecting waterways in the course of routinue maintenance dredging; and to acquire lands for and to construct, operate, and maintain water-related public use and access facilities.	Water Resources Development Act of 1986 (P.L. 99-662)
	LAKE SIDNEY LANIER, GA (See Section 48 of Text)	
Jul. 24, 1944	Provision of recreation facilities.	
	GEORGE W. ANDREWS LOCK AND DAM, AL AND GA (See Section 3A of Text)	
Jul. 24, 1946	Construction of high dam at Walter F. George site and low dam at George W. Andrews site.	H. Doc. 300, 80th Cong., 1st Sess.
Dec. 22, 1944	Provided recreation facilities.	
	JIM WOODRUFF LOCK AND DAM, GA AND FL (See Section 50 of Text)	
Dec. 22, 1944	Provided for recreation facilities.	
	WALTER F. GEORGE LOCK AND DAM, AL AND GA (See Section 53 of Text)	
May 19, 1953	Authorized construction of high dam at Walter F. George site and low dam at Columbia site.	H. Comm. On Public Works
	WEST POINT LAKE, CHATTAHOOCHEE RIVER BASIN, GA AND AL (See Section 54 of Text)	
Oct. 23, 1963	Authorized construction for flood control, power, recreation, fish and wildlife development, and streamflow regulation for downstream navigation.	H. Doc. 570, 87th Cong., 2d Sess.

1. Authorized by Chief of Engineers under Section 107 of 1960 River and Harbor Act, as amended.
2. Authorized by Chief of Engineers under Section 205 of Flood Control Act of 1948, as amended.
3. Authorized by Chief of Engineers under Section 208 of Flood Control Act of 1954, as amended.
4. Authorized by Chief of Engineers under Section 14 of Flood Control Act of 1946, as amended.

TABLE 10-C OTHER AUTHORIZED NAVIGATION PROJECTS

	For Last Full Report See Annual Report For	Cost to September 30, 2003	
		Construction	Operation Maintenance
Blackwater River, FL	1981	$41,650	$330,433
Bluff Creek, MS[1]	1963	1,000	6,883
Cadet Bayou, MS	1984	87,921	2,160,377
Cahaba River, AL[2]	1894	45,000	-
Choctawhatchee River, FL and AL	1973	171,885	291,694
Escambia-Conecuh Rivers, AL and FL	1981	208,499	2,321,574
Helicopter Lidar Bathymeter	-	-	14,343,000
Holmes Creek, FL	1931	8,562	36,800
LaGrange Bayou, FL	1972	289,496	209,089
Leaf and Chickasawhay River, MS[2]	1919	23,090	42,676
Mobile Area Digital Mapping, AL	-	-	3,024,348
Noxubee River, MS[1]	1902	47,528	14,472
Ochlockonee (Ochlockney) River, GA and FL[1 2]	1900	5,000	-
Old Town Creek[1 2]	1887	3,000	-
Oostanaula and Coosawattee River, GA[1 2]	1907	32,656	-
Panacea Harbor, FL	1979	122,383	106,446
Pascagoula River, MS	1956	15,000	179,535
Pass Christian Harbor, MS	1976	59,313	823,385
Port St. Joe Harbor, FL	1984	1,960,862	3,509,149
Removing Water Hyacinths	1984	-	1,100,471
Sediment MGT Pilot PGM	-	-	2,029,713
St. Marks River, FL	1965	1,710,809	87,379
Tallapoosa River, AL[2]	1893	43,972	-
Tombigbee River at Columbus Port, MS	1988	500,500	-
Upper Chipola River, FL from Marianna to its' mouth[1 2]	1941	36,781	63,193
Wolf and Jordan Rivers, MS	1979	29,195	701,510

1. Abandonment recommended in H. Doc. 467, 69th Cong.
2. Uncompleted portion of project deauthorized by H. Doc. 96-157, 1st Session.

TABLE 10-D OTHER AUTHORIZED BEACH EROSION CONTROL PROJECT

	For Last Full Report See Annual Report For	Cost to September 30, 2003	
		Construction	Operation Maintenance[2]
Harrison County, MS, shore protection[1]	1953	$1,133,000	-
Panama City Beaches, FL	1999	10,125,192	-

1. Completed.
2. Operation and maintenance is the responsibility of local interests.

TABLE 10-E OTHER AUTHORIZED FLOOD CONTROL PROJECTS

	For Last Full Report See Annual Report For	Cost to September 30, 2003	
		Construction	Operation Maintenance[2]
Alabama River at Montgomery, AL[1]	1965	$144,194	-
Armuchee Creek, GA	1966	115,547	-
Bayview Court, Bay St. Louis, MS	1998	247,400	-
Beaver Creek, Montezuma, GA	1958	149,815	-
Big Brown Creek, Prentiss Co., MS	1987	137,500	-
Biloxi River at Lorraine Road, Harrison County, MS	1985	132,174	-
Black Creek, Gadsden, AL	1953	125,389	-
Black Warrior River, Northport Leveel, AL	2000	4,807,566	-
Black Warrior River, U.S. Hwy. 11 Bridge, Fosters, AL	1986	181,500	-
Boggy Bayou, Valparaiso, FL	1994	147,200	-
Boligee Canal, Boligee, AL	1987	178,600	-
Burketts Creek, Amory, MS	1984	1,366,454	-
Chattahoochee River, Eufaula, AL	1988	206,600	-
Chickasaw Bogue Creek, U.S. Highway 43 Bridge, Linden, AL	1985	121,718	-
Clanton, AL	1964	274,024	-
Collinsville, AL	1940	71,119	-
County Line Road Bridge, Itawamba Co., MS	1992	116,800	-
County Road 55, Etowah Co., AL	1996	242,348	-
Cribbs Mill Creek, Tuscaloosa, AL	1994	1,848,327	-
Dauphin Island Shoreline, AL	1996	352,479	-
East End Dauphin Island, AL	1996	318,580	-
Eslava Creek, Mobile, AL	1997	4,732,721	-
Fort Toulouse, Wetumpka, AL	1994	368,000	-
Gadsden Water Treatment Plant, AL	1996	360,000	-
Goodfood Creek, Chickasaw Co., MS	1988	91,500	-
Gordons Creek, Hattiesburg, MS	1985	802,026	-
Gulf Breeze, Santa Rosa Co., FL	1991	147,432	-
Hancock County Seawall, Hancock Co., MS	1998	307,000	-
Highway 39 Bridge, Gainesville, AL	1990	71,000	-
Hintonville Road Bridge, Perry Co., MS	1991	268,691	-
Houlka Creek, Chickasaw & Clay Counties, MS	1982	238,219	-
Houston School Rd. Bridge, Itawamba Co., MS	1988	59,300	-
Hurricane Creek, Prentiss Co., MS	1992	52,803	-
Interstate 59 Bridges, Fosters, AL	1987	155,200	-
Kings Creek, Tupelo, MS	1998	499,930	-
Lake Douglas, Decatur County, GA	1970	164,998	-
Leaf and Bowie Rivers, Hattiesburg, MS	1990	1,585,000	-
Leaf River, County Road Bridge, Mahned, MS	1986	231,618	-
Little Cove Creek, Glencoe, AL	1991	144,047	-
Magby Creek, Columbus, MS	1991	156,508	-
Martin Creek, Prentiss County, MS	1988	78,500	-
Mill Creek, Dalton, GA	1992	474,065	-
Mill Creek, Sumrall, MS	1994	157,340	-
Mound State Park, Moundville, AL	1994	789,000	-
Murder and Burnt Corn Creeks, Brewton, AL	1980	190,974	-
Murder Creek, Brewton, AL	1994	1,215,000	-
Murder Creek, East Brewton, AL	1986	903,474	-
Noxubee River Relief Bridge, Shuqualak, MS	1988	119,500	-
Old Hwy. 82 Bridge, Columbus, MS	1987	143,936	-
Osborne Creek, Highway 362 Bridge, Prentiss County, MS	1985	250,000	-
Portersville Bay East, Mobile Co., AL	1996	490,750	-
Prattville, Autauga Creek, AL	1946	649,280	-
Proctor Creek, Atlanta, GA	1994	870,000	-
Pumpkinvine Creek, Emerson, GA	1985	85,029	-
Raccoon Creek, Baconton, GA	1994	385,300	-
Rome, Coosa River, GA	1955	384,550	-
Saint Louis Bay, Bay St. Louis, MS	1998	237,400	-
Sewerline Protection, Valley, AL	1989	180,937	-
Silver Creek, Rome, GA	1992	604,719	-
Sope Creek, Marietta, GA	1990	1,538,555	-
Sowashee Creek, Meridian, MS	1998	1,218,036	-
Sun Creek, Okibbeha County, MS	1984	55,569	-
Tallabinella Creek, Chickasaw County, MS	1988	81,000	-
Tallahala Creek, Pascagoula River, MS	1988	3,945,757	-
Tallahalla Creek, Laurel, MS	1996	641,058	-
Three Mile Creek, Mobile, AL	2000	17,384,782	-
Tombigbee River Bridge #6, Monroe Co., MS	1996	331,323	-
Town Creek, Americus, GA	1965	340,409	-
Trim Cane Creek, Okibbeha County, MS	1984	145,519	-
Trussville, AL	1965	141,334	-
Twenty Mile Creek, Airport Road Bridge, Frankstown, MS	1986	215,860	-
West Point, Chattahoochee River, GA	1955	599,637	-
Whorton's Bend Road, Etowah Co., AL	1991	448,956	-
Wolf Creek, Highway 362 Bridge, Prentiss County, MS	1985	114,753	-
Wolf Creek, U.S. Highway 45 Bridge, Prentiss County, MS	1986	154,641	-
Yellow Jacket Creek, Hogansville, GA	1966	330,734	-

1. Engineering, design, supervision, and administration (no construction work has been done. Includes $17,000 for pre-authorization studies.)
2. Operation and maintenance is the responsibility of local interests.

TABLE 10-G DEAUTHORIZED PROJECTS

Project	Type	Year of Last Full Report	Deauthorization Document	Date Deauthorized
Bayou Galere, MS[1]	Navigation	1946	H. Doc. 192, 94th Cong., 1st Sess., as amended.	Aug. 5, 1977
Buttahatchee Creek, MS[2] (Auth. P.L. 96-304)	Flood Control	1989	Public Law 99-662 99th Congress	Jul. 9, 1995
Coosa River Channel, Gadsden, AL to Rome, GA (Auth. 1945 Act)	Navigation	1955	Public Law 99-662 99th Congress	Aug. 18, 1996
GIWW; Apalachicola Bay to St. Marks River, FL	Navigation	1986	Public Law 99-662, 99th Congress	Nov. 17, 1986
Highway 39 Bridge, Gainesville, AL (Appropriation Act, 1986)	Flood Control	1990	Public Law 99-88	Apr.16,2002
Lazer Creek Lake, GA	Hydroelectric power	1986	Public Law 99-662, 99th Congress	Nov. 17, 1986
Little Browns Creek, AL[2] (Auth. P.L. 96-304)	Flood Control	1989	Public Law 99-662 99th Congress	Jul. 9, 1995
Lower Auchumpkee Creek, GA	Hydroelectric power	1986	Public Law 99-662, 99th Congress	Nov. 17, 1986
Montgomery to Gadsden, AL (Auth. 1945 Act)	Navigation		Public Law 99-88	Apr. 16, 2002
Noxubee River, MS[2] (Auth. P.L. 96-304)	Flood Control	1989	Public Law 99-662 99th Congress	Jan. 1, 1990
Pensacola Harbor Modification, FL	Navigation	1986	Public Law 99-662 99th Congress	Nov. 17, 1986
Sipsey River, AL[2] (Auth. P.L. 96-304)	Flood Control	1989	Public Law 99-662 99th Congress	Jan. 1, 1990
Tallahala Creek, MS (Auth. 1945 Act)	Flood Control	2000	Public Law 99-662	Apr. 16, 2002
Tombigbee River, AL & MS[2] (Auth. 1941 Act)	Flood Control	n/a	Public Law 99-662 99th Congress	Jan. 1, 1990
Westfork, MS[2] (Auth. P.L. 96-304)	Flood Control	1989	Public Law 99-662 99th Congress	Jan. 1, 1990

1. H. Doc. 96-157 deauthorized uncompleted portions of certain projects as shown in Table 10-C.
2. Deauthorized tributaries of Tombigbee River improvements.

TABLE 10-H NAVIGATION WORK UNDER SPECIAL AUTHORIZATION

Study	Authority	Fiscal year 2003 Costs
Bayou Cadet, Hancock Co., MS	107	10,152
Biloxi Channel, Harrison Co., MS	107	1,193
Ocean Springs Harbor, Jackson County, MS	107	14
Old Pass Lagoon, Destin, FL	107	417
Section 107 Coordination Account	107	10,965
Scipio Creek, Franklin Co., FL	107	7,303
Total		$30,044

TABLE 10-J FLOOD CONTROL WORK UNDER SPECIAL AUTHORIZATION

Study	Authority	Fiscal year 2003 Costs
Big Cedar Creek, Cedartown, GA	205	27,588
Black Warrior River, Northport, AL	205	2,406
Jasper, AL	205	32,775
Little Cahaba River, Moody, AL	205	23,480
Mill Creek, Eton, GA	205	2,187
Mixons Creek, Lamar County, MS	205	66,099
Section 205 Coordination Account	205	9,920
Turkey Creek, Jefferson Co., AL	205	19,629
Turkey Creek, Harrison Co., MS	205	116,118
Walton Co., FL	205	16,523
Bouie River, MS	14	74,319
Mattubbee Creek, Monroe Co., MS	14	79,090
Plum Bluff Road, MS	14	37,998
Portersville Bay, West Alabama	14	20,000
Section 14 Coordination Account	14	9,996
Weaver Creek, Monroe Co., MS	14	97,039
Whorton Bend Road, Etowah Co., AL	14	39,490
Total		$674,657

TABLE 10-K RECONNAISSANCE AND CONDITION SURVEYS

Project	Cost During Fiscal Year
Shoals - Airborne Lidar Bathymetry	$2,400,000
Channel Condition Surveys on Florida projects	151,290
Channel Condition Surveys on Alabama & Mississippi projects	152,123
Total	$2,703,413

TABLE 10-L ALABAMA-COOSA RIVERS, AL AND GA DEVELOPMENT PROPOSED UNDER EXISTING PROJECT (See Section 1 of Text)

Proposed Structures	Claiborne Lock and Dam	Millers Ferry Lock and Dam	Robert F. Henry Lock and Dam	Carters Lake Dam[3]	Allatoona Dam
Miles above mouth of river	72.5[1]	133.0[1]	245.4[1]	26.8[2]	47.8[4]
Nearest town	Claiborne, AL	Camden, AL	Benton, AL	Carters, GA	Cartersville, GA
Distance (miles)	7	10	3	2	4
Greatest lock length available for full width (feet)	600	600	600	-	-
Width of lock chamber (feet)	84	84	84	-	-
Maximum lift (feet)	30	48	47	-	-
Elevation of normal pool surface (mean sea level)	35	80	125	1072	840
Depth over sills at low water (feet)	13	Upper 15 Lower 13	Upper 15 Lower 12	-	-
Character of foundation	Rock	Rock	Rock	Rock	Rock
Kind of spillway	Gated and Fixed Crest	Gated	Gated	Gated	Gated
Height of dam (feet)	95.5	99.5	94	451	190
Type of construction	Concrete	Concrete	Concrete	Rock-fill Earth Core	Concrete
Total reservoir capacity (acre-feet)	96,360	331,800	234,200	472,800	670,050
Power development (kw)	-	75,000	68,000	500,000	74,000
Percent complete	100	100	100	100	100
Cost to date:[5]	$27,997,450	$63,125,300	$83,360,800	$111,140,340	$35,709,085

1. Above mouth of Alabama River (river miles).
2. Above mouth of Coosawattee River (river miles).
3. Reregulation dam (Carters) 25.3 (river miles).
4. Above mouth of Etowah River (river miles).
5. Includes cost of added recreation facilities as shown in Table 10A.

TABLE 10-M

APALACHICOLA, CHATTAHOOCHEE, AND FLINT RIVERS, AL, GA, AND FL, LOCKS AND DAMS AND MULTIPLE-PURPOSE DEVELOPMENT INCLUDED IN EXISTING PROJECT

(See Section 3 of Text)

	Existing Projects				
	Jim Woodruff Lock and Dam	**George W. Andrews Lock and Dam**	**Walter F. George Lock and Dam**	**West Point Lake**	**Buford Dam Lake Sidney Lanier**
Miles above mouth	107.6[1]	46.5[2]	75.0[2]	201.4[2]	348.3[2]
Nearest town	Chattahoochee, FL	Columbia, AL	Ft. Gaines, GA	West Point, GA	Buford, GA
Distance (miles)	1	1	2	2.8	5
Greatest lock length and available for full width (feet)	450	450	450	-	-
Width of chamber (feet)	82	82	82	-	-
Maximum lift (feet)	33	25	88	-	-
Elevation of normal pool surface (msl)	77	102	190(Summer) 185(Winter)	635(Summer) 625(Winter)	1071(Summer) 1070(Winter)
Depth over sills at low water (feet)	14	13	13	-	-
Character of foundation	Limestone	Limestone	Limestone	Rock	Rock
Kind of spillway	Fixed-gated	Fixed-gated	Gated	Gated	Fixed
Height of dam (feet)	67	72	114	95	192
Type of construction	Concrete and Earth	Concrete	Concrete and Earth	Concrete and Earth	Earth
Total reservoir capacity (acre-feet)	367,300	18,180	934,400	604,500	2,554,000
Power-development (kilowatts)	30,000	-	130,000	73,375	86,000
Percent complete 100	100	100	100	100	100
Year opened to navigation	1954	1962	1963	-	-
Cost to date:[3]	$77,717,844[5]	$13,038,427	$119,307,196[4]	$131,565,760	$70,232,362[6]

1. Above mouth of Apalachicola River (river miles).
2. Above mouth of Chattahoochee River (river miles).
3. Includes cost of added recreational facilities as shown in Table 10-A.
4. Includes $30,976,527 cost of land for wildlife refuge and $10,932,884 for major rehabilitation.
5. Includes $29,738,986 for major rehabilitation.
6. Includes $17,202,324 for major rehabilitation.

TABLE 10-N BLACK WARRIOR AND TOMBIGBEE RIVERS, AL

(See Section 8 of Text)

	Coffeeville Lock and Dam	Demopolis Lock and Dam	Armistead Selden Lock and Dam	William Bacon Oliver Lock & Dam (Replacement)	Holt Lock and Dam	John Hollis Bankhead Lock and Dam[1]
Miles above Mobile[2]	116.7	213.2	261.1	337.7	347.0	365.5
Nearest town (Alabama)	Coffeeville	Demopolis	Eutaw	Tuscaloosa	Tuscaloosa	Tuscaloosa
Distance (miles)	3 (within city)	6	15	(within city)	6	30
Lock:						
Grestest length available for full width (feet)	600	600	600	600	600	600
Width of chamber (feet)	110	110	110	110	110	110
Maximum lift (feet)	34	40	22	28	64	68
Depth over sills at low water (feet)	13.0	13.0	13.2	18.0	13.0	14.0
Character of foundation	Rock	Rock	Sand, clay	Hard shale	Shale, sandstone	Sandstone
Kind of spillway	Fixed-Gated	Fixed	Gated	Fixed	Gated	Gated
Type of construction						
Lock	Concrete	Concrete	Concrete	Concrete	Concrete	Concrete
Dam	Concrete	Concrete	Earth-Concrete	Concrete	Concrete	Concrete
Year completed	1965	1962	1962	1934	1969	1985
Year opened to navigation	1960	1954	1957	1991	1966	1975
Actual cost of lock and dam[3]	$21,597,264	$19,774,583	$13,295,553	$123,822,919	$28,100,000	$52,292,880

1. Single lift lock.
2. Navigation mileage from foot of Government Street, Mobile, Ala.
3. Excludes cost of adding recreation facilities.
4. Scheduled.

TABLE 10-O

TENNESSEE-TOMBIGBEE WATERWAY, ALABAMA AND MISSISSIPPI
(See Section 21 of Text)

	Existing Projects									
	Gainesville Lock and Dam	**Aliceville Lock and Dam**	**Columbus Lock and Dam**	**Aberdeen Lock and Dam**	**Lock A and Spillway**	**Lock B and Spillway**	**Lock C and Spillway**	**Lock D and Spillway**	**Lock E and Spillway**	**Bay Springs Lock and Dam**
Miles above mouth[1]	266	307	335	358	371	376	39	398	407	412
Nearest town	Gainesville, AL	Aliceville, AL	Columbus, MS	Aberdeen, MS	Amory, MS	Smithville, MS	Fulton, MS	Fulton, MS	Belmont, MS	Tupelo, MS
Greatest lock length available for full width (feet)	600	600	600	600	600	600	600	600	600	600
Width of Chamber (feet)	110	110	110	110	110	110	110	110	110	110
Maximum lift (feet)	36	27	27	27	30	25	25	30	30	84
Elevation of normal pool surface (msl)	109	136	163	190	220	245	270	300	330	(Summer) 414 (Winter) 409
Depth over sills at low water (feet)	15	15	15	15	15	18	18	18	18	18
Character of foundation	Mooreville Chalk	Eutaw Form. Sand & Clay	Eutaw Form. Sand & Clay	Eutaw Form. Sand	Eutaw Form. Lam. Sand	Eutaw Form. Sand & Clay	Gordo Form. Clay	Eutaw Form. Sand	Gordo Form. Clay	Sandstone and Shale
Kind of spillway	Fixed & Gated	Fixed & Gated	Gated	Gated	Gated	Gated	Gated	Gated	Gated	N/A
Height of dam (feet)	56	57	57	57	46	48	53	52	44.5	103
Type of construction	Concrete	Concrete & Earth	Concrete & Earth	Concrete & Earth	Concrete & Earth	Concrete & Earth	Concrete & Earth	Concrete & Earth	Concrete & Earth	Concrete & Earth
Total reservoir capacity (acre-feet)	45,290	655	59,483	31,564	4,400	19,000	13,300	24,900	6,900	(Summer)180,000 (Winter) 143,000
Percent complete	100	100	100	100	100	100	100	100	100	100
Year opened to navigation	1978	1979	1981	1984	1985	1985	1985	1985	1985	1985
Estimated Cost	$103,214,000	151,255,000	182,650,000	128,262,000	102,685,000	96,905,000	71,375,000	98,205,000	88,173,000	147,000,000
Cost to Date	$100,010,600	143,190,800	174,620,500	112,620,200	92,190,500	93,106,700	62,197,000	89,610,800	76,917,700	130,398,000

1. Miles above Mobile, Alabama (Mile 0.00 is at Bankhead Tunnel on U.S. Highway 90).

TABLE 10-P COMPLETED FLOOD INSURANCE STUDIES AND FLOOD HAZARD INFORMATION REPORTS FOR FY 1993 THRU FY 2003[1]

	Requesting Agency	Date Completed	Federal Cost
Flood Insurance Studies			
Fayette County, GA	Federal Emergency Management Agency (FEMA)	Jan 93	264,000
Tupelo, MS	Federal Emergency Management Agency (FEMA)	Jun 94	157,965
Mobile, AL	Federal Emergency Management Agency (FEMA)	Nov 94	254,531
Tuscaloosa, AL	Federal Emergency Management Agency (FEMA)	Jan 97	182,000
Dougherty Co., GA	Federal Emergency Management Agency (FEMA)	Feb 97	244,000
Meridian, MS	Federal Emergency Management Agency (FEMA)	Jan 96	119,000
Special Flood Hazard Information			
Big Wills Creek, AL	Fort Payne, AL	Aug 93	41,800
Dry Creek, AL	Oneonta, AL	Dec 93	25,000
Big Wills Creek, AL	Valley Head, AL	Nov 93	34,800
Coosa River, AL	Wilsonville, AL	May 95	35,000
Choctawhatchee River, FL	Holmes County, FL	Aug 95	3,000
Thompson Creek, MS	Richton, MS	Aug 96	44,000
Black Creek, MS	Forrest Co., MS	Aug 97	35,000
Leaf River, MS	McLain, MS	Sep 97	19,000
Tanyard Creek, AL	Jasper, AL	Oct 96	32,000
Cane Creek & Tribs, AL	Oakman, AL	May 97	45,000
Magby Creek, MS	Lowndes Co., MS	Apr 96	5,700
Coosa River	Wetumpka, AL	Sep 98	24,000
Chickasawhay	Shabuta, MS	Sep 98	62,000
Walnut Creek	Chilton Co., AL	Nov 98	4,000
Big Dry Creek	Floyd Co., GA	May 99	62,000
Noxabee River	Macon, MS	Sep 99	67,000
Spring Creek	Lafayette, GA	Aug 99	7,000
Galbrith Mill Creek	Montgomery, AL	Sep 99	14,000
Okeelala Creek	Baldwyn, MS	Oct 99	53,000
Coosa River	Riverside, AL	Oct 99	5,000
Black Warrior River	City of Northport	June 00	50,000
Graves Creek	Roanoke, AL	Jul 2001	55,000
Perkins Creek	Lamar Co., MS	Sep 2000	63,000
Ryan Creek	Cullman, AL	Jan 2001	59,000
Carteycar River	Gilmer Co., GA	Sep 2001	60,000
Halawakee Creek	Opelika, AL	Feb 2002	56,000
Pascagoula Creek	George Co., MS	Mar 2002	8,000
Bogue Homo Creek	Heidelberg, MS	Aug 2002	58,000

1. For list of reports completed by Mobile District for FY 1965 thru FY 1974, see FY 1974 Annual Report, page 10-50; reports completed in FY 1975 see FY 1975 Annual Report, page 10-44; and for reports completed in FY 1976 and FY 1977, see FY 1977 Annual Report, page 10-46. See page 10-48 FY 1978 Annual Report for FY 1978 reports, and see page 10-43 FY 1984 Annual Report for FY 1978 through FY 1984 reports.

No new SFH studies in FY 2003.